

The Effects of Action Cameras on Non-Fiction Cinema: A Comparative Analysis of the Films *Drifters* (1929) and *Leviathan* (2012)

Geliş Tarihi/Received: 02.02.2021
Kabul Tarihi/Accepted: 30.08.2021
DOI: 10.46372/arts.946923

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ABSTRACT

There is a reciprocal relationship between the advances in recording technology and film styles. This work shows the effects of action cameras on non-fiction cinema by comparing two films that focus on the lives of fishermen. While *Drifters* (1929) served as a prototype for documentary film, *Leviathan* (2012), completely shot with action cameras, is referred not only as an original documentary, but also an art film. This work argues that action cameras, with their unique technical advantages and wide usage, have the potential for leading profound changes in non-fiction cinema. Generally, few directors and producers who had the means of production could introduce new styles and manipulated the existing ones. However, currently action cameras with professional qualities are available for amateur usages. Easy mounting options and the ability to record everywhere let people try various shooting alternatives for producing authentic and original works. Through video sharing websites, a huge number of amateur people have the opportunity to share their works, receive feedback, and be inspired by other people's productions concurrently. This provides the most fertile condition for improvement of personal video productions, and emergence of new visual styles and artistic approaches in non-fiction cinema.

Keywords: non-fiction cinema, documentary film, action cameras, image recording technologies

Özdem, Ö. (2021). The Effects of Action Cameras on Non-Fiction Cinema: A Comparative Analysis of the Films *Drifters* (1929) and *Leviathan* (2012). *ARTS: Artuklu Sanat ve Beşeri Bilimler Dergisi*, 6, 281-304.

Aksiyon Kameraların Kurmaca Olmayan Sinemaya Etkileri: Drifters (1929) ve Leviathan (2012) Filmlerinin Karşılaştırmalı Analizi

ABSTRACT

Film tarzları ile kayıt teknolojilerindeki gelişmeler arasında çift taraflı bir ilişki vardır. Bu çalışma balıkçıların yaşamlarına odaklanan iki filmi karşılaştırarak, aksiyon kameraların kurmaca olmayan sinemaya etkilerini gösterilmektedir. Drifter (1929) belgesel film için bir prototip olarak düşünülürken, tamamen aksiyon kameralar ile çekilmiş Leviathan (2012) sadece orijinal bir belgesel olarak değil aynı zamanda bir sanat filmi olarak bilinmektedir. Bu çalışmada, kendine özgü teknik özelliklere ve yaygın kullanıma sahip aksiyon kameraların, kurmaca olmayan sinemada derin değişimler yapabilecek potansiyele sahip olduğu iddia edilmektedir. Sinemada yeni tarz geliştiren veya var olan tarzları manipüle edebilmiş olanlar, genellikle üretim araçlarına sahip az sayıda yönetmen ve yapımcılardır. Ancak, günümüzde profesyonel niteliklere sahip aksiyon kameraların, amatörler tarafından kullanımı da mümkündür. Aksiyon kameraların, her yere kolay monte edilebilmeleri ve her koşulda kayıt yapabilmeleri, insanlara otantik ve orijinal görsel üretimler yapabilmeleri için farklı alternatif çekim denemelerine izin vermektedir. Video paylaşım siteleri vasıtasıyla, birçok amatör birey, çalışmalarını paylaşma, geri bildirim alma ve aynı zamanda diğer insanların çalışmalarından esinlenme fırsatına sahiptir. Bu durum, kişisel video yapımların gelişmesi, kurmaca olmayan sinemada yeni görsel tarzların ve sanatsal yaklaşımların ortaya çıkması için en verimli koşulu sağlamaktadır.

Keywords: kurmaca olmayan sinema, belgesel film, aksiyon kameralar, imge kayıt teknolojileri

INTRODUCTION¹

The history of cinema reveals that economic, political, and cultural factors have been influential on emergence of films genres and movements. Without falling into technological determinism, it should be underlined that camera technologies together with film / video editing systems have also played prevailing role both in the form and context of fiction and non-fiction cinema. Briefly, the camera technologies have always been influential in what has been recorded as well as how it has been recorded.

The advances in camera technologies not only have provided better ways to capture and represent reality but also the means of film productions that are more attainable and easier to use both for film professionals and amateurs. From 35mm cameras to 16mm synchronized sound recording cameras, from digital video to mobile phone cameras, every advance in recording technologies is welcomed enthusiastically especially by non-fiction filmmakers. The reason is twofold. Firstly, compared to fictional cinema, non-fiction films have been more in need of sponsorships such as state support. While fictional stories attract more viewers, documentary films are generally associated with a relatively limited number of viewers. Because of their relative low box office, the productions of nonfictional films may suffer more from limited production budget. The developments in camera and related technologies mean better and easy ways to capture or to represent reality with lower costs for the non-fiction filmmakers. That is why, the attainability of advanced cameras is economically crucial for non-fiction film producers.

Secondly, from an historical perspective, both photography and cinematography have been initially considered in terms of their ability to represent reality. For instance, in the first years of photography, it was described as an artificial retina for physicist (Wilder, 2009: 163). Moving images, carrying the scientific and evidentiary characteristics of photography provided the illusion of a pure unmediated representation of reality and due to the scientific use, it was gradually accepted that the camera did not lie; if it did, it was just as much as a thermometer or barometer could lie (Winston, 1993, p. 37-41).

Today the real world is represented in both fictional and non-fictional cinema. Although the boundaries between fiction and non-fiction film blur day-by-day and

¹ An earlier version of this paper was presented at the 15th International Conference on The Arts in Society (24-26 June 2020).

the contradictory usages of digital image have made the reality claim of camera much more controversial; recording the real life immediately and representing it as unmediated as possible are still crucial especially for non-fiction filmmakers. In this regard, new advanced cameras may let non-fiction filmmakers easily capture the daily real life due to their versatility, low weight and user-friendly operating systems. To show the inherent relationship between developments in camera technologies and emergence of different film styles, the following section elaborates on prominent examples of film production and related film movements. After building up such a framework, this study focuses on action cameras as recent development in camera technologies which also represents that kind of a reciprocal relation. The following comparative analysis of the films *Drifters* (John Grierson, 1929) and *Leviathan* (Lucien Castaing-Taylor & V  r  na Paravel, 2012) reveals how action cameras would be more influential on and have more promising potential for non-fiction cinema when compared to other camera technologies.

THE RECIPROCAL RELATION BETWEEN CAMERA TECHNOLOGIES AND FILM STYLES

The history of cinema shows that the developments in camera and related technologies have affected the film production profoundly and have led emergence of new film styles. To reveal this relationship, this work firstly points out the reciprocal relation between film styles and camera technologies by focusing on major examples *Nanook of the North* (Robert Flaherty, 1922), *Man with a Movie Camera* (Dziga Vertov, 1929) and the Direct Cinema movement in the United States and the Cinema Verit   approach in France during the 1960s. This work specifically takes action cameras into account as a technological tool produced in 2000s for usage of both amateurs and professional film producers. By employing comparative film analysis approach as the methodology, analysis of two films *Drifters* (1929) (served as a prototype for documentary film) and *Leviathan* (2012) (completely shot with action cameras) this work discusses the effects of action cameras on non-fiction cinema. It is argued that action cameras, with their unique technical advantages and wide usage, have the potential for leading profound changes in non-fiction cinema because of their professional qualities available for amateur usages.

As already mentioned, the developments in camera technologies generally

accompany with the emergence of film styles. However, at this point, it is better to avoid from a techno determinist approach. It is evident that production of specific cameras has led to the creation and emergence of several film styles. However, specific needs and necessities have also forced the production of specific cameras and related technologies. In this regard, focusing on the mentioned films and the movements below is vital to understand this reciprocal relation between film styles and camera technologies better.

Nanook of the North (1922) and the Development of Akeley 35mm Cameras

The usage of film studios may provide many advantages for film makers in fiction cinema. It may decrease the production costs and provide controllable conditions for various shootings. Shooting a film outside the controlled conditions of film studios can be seen more realistic, but there may be many technical and environmental problems due to uncontrollable factors. Additionally, it may be more difficult to record actions real-time by big and heavy cameras for non-fiction filmmakers. That is why reenactments and repeated actions are among the common practices for many filmmakers. In this respect, it is claimed that many of the advances in camera technology have been due to the needs of filmmakers shooting outside the studios.

Concerning the recording technologies in the 1920s, it was clear that shooting outside had generally required technological improvisations and filmmakers had to adopt themselves to several conditions. Robert J. Flaherty's film *Nanook of the North*, which is about the lives of Eskimos can be seen as an example. Flaherty was working with non-actors in hard weather conditions while filming the life of Inuit people. In his first try in 1913, he had tried to adopt his Bell & Howell studio camera to his needs (Ellis and McLane, 2005: 21). When he completed his film by editing 30,000 feet of film (about 12 hours of records), he was not happy with the results. According to him, this first version was just like a travelogue lacking emotions and a story. To use film language effectively and overcome the editing problems, he needed close ups and wanted to show people and their actions from different angles and scales (Barnouw, 1983, p. 35, 39).

In his second try, he purchased the newly developed Akeley 35mm camera to record Eskimo people. Those Akeley cameras were specially designed for wild

nature records. They were relatively durable, lightweight and they could record in cold weather conditions. Additionally, Akeley cameras had many advantages for the users such as having a new mechanism to change the film magazine easily. They had two lenses allowing simultaneous focus, and also its viewfinder could stay constant while making camera movements such as pan or tilt (McLane, 2013, p. 25).

In this respect, the production of 35mm Akeley cameras has been definitely an important factor for the success of *Nanook of the North*. But, despite many advantages of Akeley 35mm camera, Flaherty could not escape from the critics regarding deceptively portraying staged events as reality. His camera was still large and heavy. Therefore, he had to use tripod. To record people and actions from different angles, with various shooting scales, together with several camera movements, Eskimo people had to repeat their actions many times. Consequently, as McLane says, viewers watch ordinary people and their ordinary actions in the film, but all these actions were done for the camera (2013, p. 25).

All in all, *Nanook of the North* exemplifies the reciprocal relation between film styles and camera technologies. In that respect, 35mm Akeley cameras can be thought as nearly 90 years old version of action cameras due to their ability to record in cold weather conditions and easy usages. It can be claimed that what Flaherty really needed was today's action cameras. However, it should also be underlined that the usage of action cameras does not necessarily provide more reality claim but at least the multiple and simultaneous usages of those tiny cameras are functional to remove the need for repetition of the actions of recorded people.

Man with a Movie Camera and Kino-Glaz

As the name of the film implies, Vertov's brother Mikhail Kaufman carries a camera and records almost everything in daily life for their film. The film not only shows 24 hours in a single day but also it is a film about filmmaking itself. In his film as an experimental documentary, Vertov gives special importance to catch the actions. That is why, he used concealed camera angles and he did not use enactments (Barnouw, 1983, p. 57). In this regard, *Man with a Movie Camera* film can be considered as the practice of his theory of the *kino-glaz* (cinema-eye), which has become influential in emergence of realistic cinema verité approaches

during the 1960s.

His theory of Cinema-eye refers to seeing through the camera. He said the following in his manifest: "I am kino-eye, I am mechanical eye. I, a machine, show you the World as only I can see it" (Vertov, 2007, p. 17). He argued that there was a need for a cinema-eye [that was not limited as the human eye] to show the real world. He considered camera eye as superior to human eye and the World seen by human eye was totally different than the World seen by camera-eye. According to him, human eye could not see the dynamics of social events, but cinema-eye of the camera achieves to catch everything. Additionally, Vertov thought that camera eye could be improved whereas there was no such an option for the human eye, and because of this crucial potential of the camera, he aimed to liberate camera from human eye (2007, p. 15-16, 100).

According to Lawson (1964, p. 74), Vertov considered camera as the armed eye of the director and camera-eye could explore, see, and record impressions. Vertov wanted "creation [of] a new perception of the world" and he thought that there was no limit for camera (Barnouw, 1983, p. 58). He tried to record without intervention; thus, he preferred surprises and candid camera shooting (Vertov, 2007, p. 314). While his slogans of "life as it is" and "life caught" mean that everything must go on as usual in recording; Vertov did not hesitate to manipulate in editing (Ellis and McLane, 2005, p. 32). This is what is exactly seen in the film *Leviathan* shot by using action cameras. In this regard, it can be argued that in the 1920's, when the camera technology was in its infancy step, Vertov thought what the directors of *Leviathan* coincidentally did. He said the camera, which imitated human eye, would be free (Vertov, 2007, p. 16) and his guess was right.

In *Man with a Movie Camera*, Vertov used double exposure to create impossible and evocative shots. For instance, the man with the camera (Mikhail Kaufmann) in the film is seen at shooting from the bottom of a mug of beer. He is also seen as a giant-sized over the crowd he is shooting (Teare, 2019). As Vertov presumed, camera technology has improved much today. Now, action cameras are waterproof enabling shoots from the bottom of a beer mug. Additionally, action cameras can be placed everywhere. They can record what is happening in the dark and also they may provide much larger view angle than human eye. In this regard, action cameras can be evaluated as free from human eye and even they can be seen as superior to human eye just like Vertov suggested. In fact, today's

action camera can be thought as the dream of Vertov and his brother.

Consequently, Vertov's theory of kino-glaz (cinema-eye) and his film *Man with a Movie Camera* clearly underline the reciprocal relation between camera technologies and film styles. More importantly, his approach also had a remarkable effect in the emergence of Direct Cinema and Cinema Verité movements (Ellis and McLane, 2005, p. 30) which have developed in relation to another improvement in cinema-eye: invention of 16mm cameras with synchronized sound.

16mm Cameras & Cinema Verité / Direct Cinema

While Direct Cinema movement is specifically known with films such as *Primary* (1960), *Yanki No!* (1960), *Don't Look Back* (1967), *Salesman* (1969) in the US., Jean Rouch and Edgar Morin's documentary *Chronicle of a Summer* (1961) is considered as the representative of Cinema Verité in France. These film movements show a desire for a new realist approach in cinema. According to Monaco, the emergence of these movements was also related to the developments of technical equipment (2003, p. 206). Showing the life as it is and catching the spontaneous movements carry a special importance for these film making approaches. In this respect, Thompson and Bordwell argue that the development of 16mm light weight cameras with synchronized sound recording have made these cinematic movements possible (2003, p. 477).

In fact, 16mm camera was first developed in the 1930s and was considered as an amateur one compared to 35mm cameras. Although they were relatively lighter, they still required tripods. Moreover, while placing the camera on a tripod, the movements and events to be recorded could end. Therefore, reenactments were still required. In addition to this, synchronized sound recording was not possible outside the studios. Consequently, the usage of narrator voice was a common practice for documentary film makers (Thompson & Bordwell, 2003, p. 485). Due to those limitations, Winston underlines that documentary film makers have thought that their only need was a light portable film equipment letting them to record actions immediately in every situation (1993: 42).

With the spread of television in the 1950s, 16mm cameras were advanced and become popular as television created the market for them (Chanan, 2007, p. 122,124). As a result, Robert Drew and his team consisted of film makers have

developed the 16mm camera with synchronized sound recording in the US. (Beattie, 2004: 86). This development not only made the television documentaries more enjoyable by eliminating the mandatory use of didactic narrator voice, but also it led the emergence of Direct Cinema movement, in which the daily lives of people (ordinary and/or famous) were filmed as if the camera was not there. The main assumption of Direct Cinema movement was that the real daily life could be captured via lightweight 16mm cameras without intervention. The members of this movement thought that they could capture what was going on without being noticed, just like a fly on the wall (Thompson & Bordwell, 2003, p. 485).

16mm cameras have also been influential in the emergence of Cinema Verité movement in France. Beattie underlines those social scientists especially ethnographers and anthropologists in France needed portable cameras for their observational research (2004, p. 87). In this respect, anthropologist filmmaker Jean Rouch together with sociologist Edgar Morin made their film *Chronicle of a Summer* (1961), which has become the representative of Cinema Verité approach. The film was shot by 16mm camera. According to Barnouw, in their film (also in their approach), the camera is used as a stimulator that reveals people's emotions and it can also be used as a catalyzer that can uncover the hidden reality (1983, p. 253). That is why presence of their camera and people's reactions to it are part of their film.

According to Ellis and McLane, the pioneers of Cinema Verité movement use Vertov's Kino-pravda (Cinema-Reality) approach together with Flaherty's film making methods (2005, p. 216). Besides their effects on each other, Direct Cinema and Cinema Verité movements together with Flaherty's film *Nanook of the North* and Vertov's film *Man with a Movie Camera* have been so influential in film making as they reveal possible effects of different camera technologies. At this point, action camera stands as another recent invention to be analyzed for revealing the relation between development in camera technologies and emergence of various film styles.

Action Cameras

The first action camera was invented in 2004. It was initially designed for surfers who wanted to record themselves while performing actions. The desire to

record extreme actions especially among extreme sportsman has given way to expanded and diverse uses of action camera in a short period of time (Foster, 2012). That expansion has been accompanied by the development of diverse mounting apparatuses letting people attach or wear the cameras safely (Hockenson, 2013). Action cameras are small, portable, mountable to anywhere, lightweight, easy to use and enduring. Due to their high image quality, they are also convenient to professional use. Their initial target is consumers; therefore, they are relatively cheap. However, due to their continuously improved professional specifications, such as high-resolution bit rates of video recordings, and their ability to record videos with high frame rates, professional filmmakers also become interested in their usage.

Regarding non-fiction tradition, film makers have always thought that their basic need was film equipment recording in every situation easily (Winston, 1993, p. 42). Thus, technical specifications of action cameras are said to be highly and adequately sufficient for professional film makers as well. Although those cameras are mostly used in non-fiction films, their usage is not limited to non-fiction. Nowadays, it is possible to see the use of action cameras even in blockbuster fictional films such as *The Martian* (2015). Therefore, mentioning some of the technical specifications of action cameras will be helpful to understand their potential professional usages in both fiction and non-fiction films.

Action cameras have optional view angles from 90 to 170 extra wide degree. Therefore, these cameras let the viewers watch what the actor sees smoothly. Since they can capture videos in high resolution rates such as 4K and 8K, it is also possible to make several arrangements by rescaling the frames. Their ability to capture videos in high frame rates let the viewers watch even rapid actions slowly in detail. Action cameras are designed to record in any physical condition in anywhere depending on the needs of users; so, there are very durable. They have varieties of mounting apparatus that let users record videos from unique and unusual points of view. Besides all these advantages, they also have video recording options that let professional color correction. All these specifications show that even though initial target group for action cameras were amateurs, they also fulfil the high-quality standards of professional use. Because of their affordable price, many consumers and amateurs may benefit from all the professional usage potentials of action cameras. The following comparative analysis of the film *Leviathan* (2012) and *Drifters* (1929) reveals the potential of action cameras to non-fiction cinema.

DIFFERENT CAMERAS ON THE SAME SUBJECT: COMPARATIVE ANALYSIS OF LEVIATHAN (2012) AND DRIFTERS (1929)

Drifters was shot by a 35mm film camera approximately 83 years before the film *Leviathan*, whereas *Leviathan* was shot by using many action cameras with a similar subject. While *Drifters* is about the story of Britain's North Sea fishing industry, *Leviathan* focuses on the North American fishing industry. They both show the lives of fisherman and the life at sea in detail. Due to the similarity of the subject, the comparative analysis of these films will underline the potential of action cameras to non-fiction film in a comprehensive way.

Drifters was the first film of John Grierson who is considered as the founder of British Documentary Movement. Therefore, this film marked the beginning of the Movement and it served as a prototype for many films followed. Grierson was responsible from the production of whole film. He produced, scripted, directed and edited the film. He was also responsible for the directory of photography together with Basil Emmott. Although it has a very low budget (less than 2500 pound), *Drifters* was well received. According to Ellis, Grierson used the success of his film to develop the British documentary film movement rather than pursuing his career as a personal filmmaker (www.filmreference.com).

Although there were many different documentary films shot independently with different styles within the British Documentary Movement (quoted from Basil Wright in Sussex, 1975, p. 54), documentary is traditionally considered as real, and it has an attributed reality and objectivity claim (Bagust, 2008, p. 216). In this respect, the directors of *Leviathan* Lucien Castaing-Taylor and Véréna Paravel say that they hate typical conventional documentaries that has authority over truth. They especially aim at reviving emotional sensation; therefore, they wanted to make their film open ended and more embodied (Juzwiak, 2013). In an interview, Castain-Taylor says, "I hate most documentaries" and he continues:

The moment I feel like I'm being told what to think about something, I feel that I want to resist the authority of the documentarian. We're more interested in making films that are more open-ended, that ask the spectators to make their own conclusions. We're always implicitly, if not explicitly, fighting against how bad documentary is. Documentary claims to have this privileged purchase on a truthful version of reality – it's not fiction, this is the real – but most documentaries' representation of the real is so attenuated and so discourse-based and language-based. We lie and we mystify ourselves with words. Words can only take us so far. I think we want to get to a much more embodied, a much more corporeal representation of reality that's almost a presentation of reality. Reality that transcends our representation, so it's not reducible to a set of statements of what commercial fishing's about.

(quoted in Juzwiak, 2013).

In this respect, *Leviathan* takes 87 minutes and similar to *Drifters*, it hasn't got a long list of technical cast. It is directed, produced, edited by Taylor and Paravel who were also responsible for the cinematography together with whole ship crew using small action cameras (IMDb: The Internet Movie Database). *Leviathan* is mentioned as an experimental film and it disorients and drown the viewers in a nightmare vision of the sea (Robey, 2013). New ways of seeing are tried to be found in the film to underline the senses (Lim, 2012). According to Corner, technological advances such as the production of small cameras and digital editing facilities have been effective in changing the reality claim of documentary and making documentary more self-reflexive (1996, p. 25). At this point, it can clearly be observed that using many action cameras in *Leviathan* has enormous influence in making the film sensory and self-reflexive.

As an experimental film, *Leviathan* immerses the viewers into commercial fishing (Howell, 2013). According to Tobias (2013), new ways of expressing the truth, free from the past formulas have been found in the film. At this point, compared to *Leviathan*, *Drifters* may wrongly be referred to be a representative of traditional documentary that has authority over truth. In fact, Grierson was not strike for authenticity and he defined documentary film as the creative treatment of actuality (1933, p. 8). Therefore, to Grierson, there was no problem in altering reality slightly. He gave importance to the ideal representation and that is why, for *Drifters*, he chose a trawler just because of its photogenic characteristics. Interior cabin of the trawler could not be recorded at the sea; therefore, he built the cabin on land for interior shootings (Chapman, 2015, p. 57).

Additionally, there are many reconstructions and reenactments in the film. Although it seems like the place is single, the village and the bird scenes were from different places and underwater in fact was shot in an aquarium (<http://www.eafa.org.uk>). Like *Leviathan*, *Drifters* also had new experimental ways of expressing the truth. Grierson who interested in modern abstract art saw cinema as a modern art. Although he was realistic, he was also interested in form, admired individual creativity and aesthetic experiments. Therefore, in *Drifters* everyday life is shown poetically and the relation between nature and human is emphasized with symbolic associations (Sexton, 2002, p. 43,50).

As Christoph Brunner says, digital technologies underline a new documentary and a transformation in documentary by enhancing and intensifying immediation (2012: 1). In this regard, *Leviathan* totally represents a new format in non-fiction film especially with its cinematographic style. *Leviathan* is very attached and close to the lives of fisherman. As Macnab (2013) puts it, Grierson wanted the same thing in *Drifters* but compared to *Leviathan*, his film is detached and distant. Therefore, one can claim that these differences between two films are mainly due to the technical specifications and the characteristics of the cameras used. Of course, there are many fundamental formative, content-wise and affective differences between two films. However, if the dreams of the pioneers like John Grierson, Dziga Vertov, Robert Drew had been true; if they had had cameras like action cameras, the films they produced would have been different. To support this claim, it is crucial to focus on specific advantages and potentials of action cameras by pointing out basic differences and similarities between two films in this respect.

Director's Perspective vs. Multi Perspectives

While *Drifters* was shot by one camera, at least 20 cameras were used in shooting *Leviathan*. In the beginning, the directors of *Leviathan* planned to shoot the film in the fabrics. In other words, the film was first planned to be shot on land by using standard big digital cameras. When fishermen invited them to the sea, the directors realized that shooting the film in the sea was a much better idea (Lim, 2012). However, while filming on the board, they lost their digital cameras at the sea and possibly this has been the reason for the directors for deciding to shoot their film by using many action cameras providing them lots of unexpected images and sounds (Murphie, 2014, p.193).

As already mentioned, action cameras are not expensive compared to 35mm cameras and/or any professional digital cameras. That is why, in total 20 action cameras could have been used in *Leviathan* everywhere overboard (Robey, 2013). Besides the advantage of using many cameras instead of one camera, these action cameras are tiny and waterproof. Therefore, they can be placed and shot in or on almost everywhere. In *Leviathan*, the action cameras were on the helmets of the fisherman, they were mounted on the different parts of the board, they were thrown into the waterproof containers on the board, or they were dunk into

the sea. That is why *Leviathan* shows the viewers the images of an unknown world (Goldsmith, 2013). When small action cameras are everywhere, the viewers do not only see from one camera's (a director's) point of view. Action cameras provide multiple and diverse visual point of views so the viewers can see not only what the human see, but also what the bird and fishes see, what the trawler sees even what the sea sees (Bradshaw, 2013).

The presence of diverse and unusual visual points of view in *Leviathan* reminds Dziga Vertov's theory of kino-eye and his film *Man with a Movie Camera*. As Marsh (2012) says there is a Vertovian approach in *Leviathan* possibly provided by the use of many small action cameras. The film is just like a 'fish with a movie camera' and it tries to show the viewers a world that has not been seen before. At this point it should be underlined that all the shootings in *Leviathan* are not totally intentional. Since these cameras are small enough to be mounted to the poles, it is not always possible to view what they record and generally they may provide unexpected images and sounds (Murphie, 2014, p. 193).

While Grierson was shooting *Drifters* on board during the stormy weather, he possibly had many difficulties to protect his camera. Of course, it was not possible to shoot underwater. However, in *Leviathan* an action camera mounted on a long pole lets viewers to swing around the dead fishes and to heave with the ship. This reminds Murphie's claim that, just like Deleuze's concept of time-images, action cameras in *Leviathan* produces new images in which organizational space loses privileged direction and omni-directional spaces constantly varies its angles and coordinates (2014, p. 198). For instance, in a scene, the camera was mounted on the top a stick and from an upside-down perspective the viewer watch the inverting sea and sky while the camera is up and down on the surface of the sea.

Diminishing Authorship, Decentering the Human, and Immersion

While *Drifters* presents the director's perspective to the viewers, *Leviathan* shows multiple perspectives provided by the action cameras. In this respect, the simultaneous use of multiple action cameras and the mountability of these tiny cameras on almost everywhere indicate another important difference between two films regarding the authorship. As opposed to *Drifters*, there is no strick authorship in *Leviathan*. In other words, the director is not the main authority in the

film since action cameras were generally mounted on fisherman's bodies and or helmets. According to Dowell (2013), the film is composed of the shots that were not recorded by looking at the viewfinders and this means that the bodies become eyes. In this regard Goldsmith (2013) says that *Leviathan* is shot not with the eye but with the body therefore Dziga Vertov's eye becomes body (is replaced with the bodies in *Leviathan*). The videos recorded by multiple action cameras indicate the distribution of the authorship in *Leviathan* and also create subjectivity which in turn renounces any directorial intent (Lim, 2012).

According to Murphie, the absence of viewfinder on action cameras also diminishes the intentionality of filmmakers and therefore action cameras bring a new aesthetic to the documenting experience. The directors basically manage the situations instead of the people and this in turn is effective in creating a different aesthetic approach (2014, p. 193,194). At this point, it should be underlined that most of action cameras have recently integrated small screens to view what is being recorded. Additionally, the first models of action cameras that had no screens could be connected to mobile phones via WIFI system to let viewers to view what was recorded. However, for the shootings in *Leviathan* and in general, the common practice is that users do not continuously look at what is being recorded but instead they look at the screen before the shooting to control the framing. Therefore, there may still be many unexpected and unintentional shoots taken via action cameras.

Using action cameras mounted on the poles and on different places such as the ship's nose not only provides different and unusual visual perspectives but also decenters the human (Murphie, 2014, p. 194). In *Leviathan*, the life is observed from all angles and viewpoints, therefore camera is not depending only on human (Andrews, 2013). It is possible to see human perspective, as well as from the other animals' perspectives. This is the relativizing the human and that is why, in the credits, these animals such as fishes and birds are also mentioned. Even the moon and the sea are included in the credits as 'Luna' and 'Mare' (Dowell, 2013). Additionally, the presence of multiple perspectives in *Leviathan* has also a creative role that can be effective for activating the viewers' imagination and creating an immersive effect.

Tolley (2013) describes *Leviathan* as a film between observational documentary and experimental film. Robey (2013) considers *Leviathan* as a radical experiment in nonfictional cinema whose main aim is not to inform. Along similar lines, Tobias (2013) claims that the film does not provide information in journalistic

sense, but it is something more initiative and experimental. The directors push the limits in *Leviathan* to catch the reality and underline the senses by trying to find new ways of seeing (Lim, 2012). For instance, by the use of action cameras, many of the shooting rules of Grierson applied in *Drifters* such as keeping the camera stable were violated in *Leviathan* and experimental side of *Leviathan* surely helps to immerse the viewers into commercial fishing (Howell, 2013).

In parallel to the directors' aim to revive emotional sensations and to make *Leviathan* open ended and more embodied (Juzwiak, 2013), the records of action camera while it swings among the dead fishes help the viewers feel how sleeping with a fish is like (Robey 2013). Therefore, *Leviathan* does not only show a way of life, instead it shows how a way of life feels (Pinkerton, 2020). In other words, *Leviathan* is meant to be felt (Juzwiak, 2013) since the viewers as if can smell the fuel, salty water, and fish (Hoare, 2013). In this regard action cameras is said to allow for an intense sensuality (Murphie, 2014, p. 195). For instance, this prize winner film was described the jury as an original and imaginative film that immerses the viewers in its story (Pulver, 2013).

Like *Leviathan*, in *Drifters*, there are many close-up and extreme close-up shots that show the waves, the ropes and the fishing nets (cordage) as if the camera is inside the nets. During the storm, it is possible to feel the upheaval of the sea via the positioning of the camera on board. As Sexton says in *Drifters*, everyday life of the fisherman was tried to be documented poetically and the relation between human and nature was emphasized with symbolic associations. For instance,

the editing sequence that flits between abstract views of sea and surf, followed by a ship's funnel emitting curlicues of billowing smoke, is associative montage that stresses connections between nature and industry. Likewise, there are many shots of birds and fish grouped together and intercut with men casting herring nets, which emphasize the patterned and organizational similarities between different species (Sexton, 2002, p. 50).

Chapman also underlines that "...the film is built around the relationship between tradition and modernity. ... *Drifters* also contrasts the natural environment (sea, birds, fish) with machine technology (the recurring montages of the trawler's engine with its pumping pistols and the funnel billowing steam)." (2015, p. 59). Despite the presence abstract patterns and use of symbolic associations that may have sensual effects in *Drifters*, it can be observed that John Grierson mainly tries to produce meaning and considers the documentary film as a mean to inform people. In contrast, the directors of *Leviathan* commit to the openness of sense making

instead of producing meaning (Murphie, 2014, p. 195). Regarding this mentioned difference between two films, the role of cameras and their specifications cannot be sniffed.

Different Editing Processes of the Films

Editing can totally change or alter the way how the films are received by the viewers. As it is underlined before, the digital video recording technologies let users capture long hours of high-resolution video footages that can also be reframed and arranged at the postproduction stage. In this regard, for shooting *Leviathan* there has been 6 trips each might take up to 2 weeks (Lim, 2012) and more than 250 hours video records was captured in these trips (Dowell, 2013). However, for *Drifters*, there has been only 17 hours of raw video records in total and John Grierson together his wife spent 6 months for editing 10.000 feet raw material (Chapman, 2015, p. 58).

Sea itself and the board can offer various opportunities to filmmakers because of unpredictability. In this regard, the possibility of using many cameras definitely brings an advantage to immediately capture of events. Unlike 35mm cameras, action cameras are ready to record, and they can record the sounds simultaneously even under the sea. More importantly, there is no need to consider the cost of film stock. Consequently, the directors of *Leviathan* had the advantage of making continuous experimental shootings by placing many cameras on different places. This, in turn, provides huge raw material for the directors to edit their film creatively. Here, it should be underlined that even though action cameras distribute the authorship and intentionality is not prevail; the editing process is totally under the control of the filmmakers, and therefore postproduction stage should be considered as important as the production stage. For instance, despite the usage of multiple action cameras, *Leviathan* could be edited just like a classical documentary. Therefore, advances in camera technologies should be thought as just the means to reach specific aims since they are not enough to achieve goals by themselves.

To underline the significance of editing process, sound design should also be mentioned. *Drifters* has no sound at all due to the technical capacity of the camera used. Similarly, *Leviathan*, there is no narrator, no voice over and no dramatic manipulative music (Juzwiak, 2013). Yet, the film is claimed to be sensational. In this

regard, action cameras' capability to record audio even underwater should be emphasized. Despite the absence of manipulative music, in *Leviathan*, the sound design is effectively used together with the abstract images to manipulate viewers' emotions. Lastly, the effect of sound design is also empowered by the influential use of colors in *Leviathan*. Since action cameras can record video in raw format letting professional color correction, the directors of *Leviathan* can use the color in *Leviathan* manipulatively to create sensation.

CONCLUDING REMARKS

The comparative analysis of the films *Leviathan* and *Drifters* clearly shows the potential of action cameras in non-fiction filmmaking and how development in camera technologies leads to emergence of different styles in film making. That kind of potential have further repercussions in and consequences for professional as well as amateur film makers and films they produce.

If one compares a 35mm film with another film shot by any digital camera would find similar advantages, because technology and technical specifications of focused cameras are tremendously different. Action cameras have their unique advantages and in addition to this uniqueness, the reason behind their profound effect in non-fiction film tradition is twofold. The first and the most important reason is that the production of action camera was first aimed at the consumers and targeted their specific needs. The advances in camera technologies have been done in consideration of the television and film professionals.

Of course, there has been consumer-oriented products such as video camera in the 1970s, but in general professional needs and necessities have been the first leading motivation for the production of specific camera technologies. However, the production of action cameras was first initiated by amateurs. For instance, the first and the most popular action camera brand *GoPro* was developed by an amateur surfer who wanted to record himself while surfing. As a result, the price of action cameras has generally been affordable, and more amateurs and consumers could afford to have those cameras. That is why the first action camera company has become the fastest growing company in the world (Foster, 2012).

Within years, these cameras have been improved continuously. Due to their practicality and versatility, they have also been used by professionals and gradually

these cameras have reached the professional standards. This means that with affordable price, many amateurs and consumers can have these cameras with professional usage potentials.

Actions, situations, disasters, and daily life events can be recorded by thousands of amateurs by using their action cameras. Different and unusual point of views can be applied. Experimental shootings can be made while recording via action cameras since they are tiny and versatile. These experiments do not have to be done all intentionally but also by coincidence many unique shooting angles, movements and styles can be discovered. Additionally, the use of action cameras both by amateurs and professionals may also create a ground for affecting each other. An amateur may try to shoot just like the way she watches in a professional film, or a film professional may be inspired from the style in an amateur video shot by an action camera. At this point, the presence of postproduction and distribution facilities such as non-linear editing, video uploading, and sharing websites have a vital importance. Billions of action camera users do not only record videos, but they also edit, upload, share their own videos and watch lots of other videos uploaded by other users. The presence of this fertile ground can be thought as the second related reason for the action cameras' profound effect in non-fiction film making tradition.

Users generally upload and shared their recorded videos via social media web sites such as YouTube, Vimeo, Instagram, and Facebook. Number of people who watch those videos, written comments related to the uploaded videos or number of likes can be considered as other viewers' reactions. Firstly, the reactions of the viewers from all over the world may motivate the users (who recorded and shared action camera videos) to make better and more original videos. Second, viewers may learn different shooting styles and try to apply those styles or techniques for their own video records. New ideas may be developed, and people may imitate or contribute to an already developed shooting style. In other words, this possible interaction among people can be thought as powerful enough to create new codes, new conventions, new forms, new visual styles, and new ways of representing reality.

It should be noted that this interaction is not only limited with the individual users. Just like the interaction between amateurs and professionals; an interaction between fictional and nonfictional film styles is also possible. For instance, common

shooting styles used in fictional cinema can be applied to the non-fictional action camera records produced by amateurs and vice versa. Not only professionals but also amateurs can try every new angle, style, and option without hesitation. Experiments can be done without fear of failure and can be shared with the billions of people from different cultures, different educational and professional backgrounds.

To sum up, action cameras are attainable, and they have enormous technical advantages and capabilities. Today, the proliferation of those action cameras provides people huge advantages in individual and professional shootings. This means that development of new visual styles is not in the monopoly of few film professionals but in the hands of many people who record and share videos. This might be the most fertile condition for the emergence of new and original styles in non-fiction cinema.

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