

Analysis on the Development Direction of News Photography in the Digital Era

Fengnan Zhao

Abstract—With the rapid rise of information technology and the continuous update of science and technology, society has stepped into the digital age, which accelerates the prosperity of visual culture, and news has entered the era of reading pictures. The development of digital technology not only brings convenience to news photography, but also brings great challenges to professional news photographers. The advantage is that the buttons of digital cameras have replaced the technical means of traditional film photography, thus greatly reducing the threshold of photography. This article will explain the two development directions of photojournalism in the digital age, evaluate the contribution of documentary photojournalism to society, and also consider some development constraints.

Index Terms—News photography, war photography, rules of photojournalism, news aesthetic innovation.

I. INTRODUCTION

The rapid development of We-Media makes it possible for everyone to become the first witness on the news scene. For these conveniences, professional journalists are becoming blurred. Photo journalists around the world are going through a tough career test. May 30, 2013, was a day of reflection for photojournalists around the world. The Chicago Sun-Times laid off its entire photography department, 28 people in total, including Pulitzer Prize winner Jhon H White [1]. Now photojournalists are being freed from their fact-recording function to focus more on the meaning of news events, and thus more on the documentary. This article analyzes the development direction of news photography in the digital era and the contributions to journalistic documentary photography as well as some development restrictions.

II. TWO DEVELOPMENT DIRECTIONS OF NEWS PHOTOGRAPHY

A. The Improvement of the News Aesthetic

The primary development direction of the news photographer is to improve the news aesthetic. The audience's aesthetic level and the news reporter's aesthetic level complement and promote each other. The improvement of the public aesthetic level requires the journalists to have higher aesthetic ability, and the journalist's aesthetic ability guides the public aesthetic. To a large extent, the aesthetic feeling is determined by material conditions. Different times have different aesthetic ideas. Economic development has driven the development of society and culture. In the digital world, audiences are faced with a huge amount of

information including news. Audiences are no longer limited to obtaining information, but gradually prefer entertainment needs. The news activity is the human aesthetic creation activity, the news should not be the hard information copy, under the premise of the true record is full of the aesthetic display.

So, how to improve the news photography aesthetic? For news photographers, aesthetic appreciation is mainly reflected in visual effects, emotional expression and information value. First of all, visual effects mainly rely on the photographer's photographic awareness and photography techniques. The awareness of¹ photography shows that the photographer has a sense of the news, looks for interesting points of time and looks for interesting angles. In some regular reports, such as press conferences and speeches, the main characters are all the guests on the stage. Many reporters shoot on the stage, and the effect is almost the same. However, for some sudden events, such as explosions, car accidents and parades, photographers with photographic consciousness usually pay attention to the moment, which is the best representative of the news event, and the richest in character features and the most capable of displaying the emotional color of the parties involved. As shown in figure 1, the right picture, the meeting scene, only has the function of record. In the left picture, civilian homes in Luhanskaya village were destroyed in the air raid, which shows that the war brought great suffering to people. This kind of documentary photography can not only arouse the public's condemnation of the war but also express people's good wishes for peace.



Fig. 1. Comparison of meeting record and war photography.

Photography involves some rules. The first is the classic rule of thirds in photography, which is thought to be an approximation of the golden ratio (about 0.618). As shown in Figure 2, there are four intersections in the image. The main element or focus of the photo content is distributed at one of the four points, which is the most desirable point to attract the attention of the audience [2].

Manuscript received July 21, 2021; revised October 12, 2021.
Fengnan Zhao is with University of Melbourne, Australia (e-mail: zfn006@gmail.com).



Fig. 2. Rule of thirds in photography.

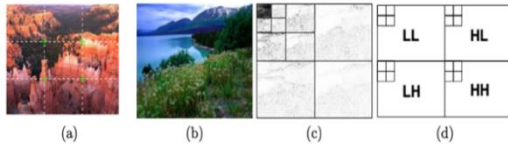


Fig. 3. Visual priority in the rule of thirds.

As shown in Fig. 3(a), the picture is cut horizontally and vertically, which are divided into three parts respectively. The choice of the intersection point is an important element of the picture, rather than the central position of the picture[3]. In Fig. 3(b), the eye is guided to the open vista (mountains and sky in the distance) by the closed foreground (grass near) and the middle scene (water and trees). Through the contrast of light and shade, the visual guidance effect is promoted. (Fig. 3c) As shown in figure 3(d), the transmission of image information presents a trend of transfer from the whole to the part. The figure shows that the HH region is the region with the highest visual frequency of the audience. The high frequency reflects the details of the image, and the low frequency reflects the general picture of the image. The visual flow of the audience is generally HH, LH, HL, LL. When the photographer is making a composition, the details should be placed in the HH area.

We will see the rule of the triangle as shown in figure 4. Geometric symbols help to control the flow of the picture, make the subject in the picture have a sense of communication, and cleverly connect the elements in the picture. The triangle rule is mostly used in portraits of people, where the most important elements are placed in the center [4]. Since people are an important factor in news events, the triangle rule is widely used in news photography.



Fig. 4. Triangle rule in photography.

Emotional expression is one of the elements to enhance the aesthetic appreciation of news photography. Classic news photography works all have one thing in common. They can instantly infect the audience. Visual language can be understood by people of different races, countries, and cultural backgrounds, because news photography shows the common contradictions of human beings, such as disease, war, disaster, conflict and so on. When the audience sees

these factors, it resonates instantly. Protesters clash with riot police in front of the Arc de Triomphe in Paris on November 17, 2018. Demonstrators in yellow vests take to the streets to protest against the 2019 fuel tax. The protests eventually turned into rioters, despite French President Emmanuel Macron's announcement of tax cuts from the budget, but the unrest continues. Photojournalist Veronique de Viguerie captures the hectic scene [5]. In this photo (figure 5), the atmosphere of smog is like war. France's worst riots in 50 years have devastated the French economy. On Dec. 20, the Museum of Versailles announced that it would close for a day on Dec. 22 because of the protests. The scale of the rioting at the Arc de Triomphe, a French landmark and tourist attraction, was a reminder of the tensions between the people and the government as well as regional unrest.



Fig. 5. Protesters clash with police at the Arc de Triomphe in Paris.

As shown in Fig. 6, German Chancellor Angela Merkel had a dispute with US President Donald Trump at the G7 summit. Trump repeatedly demanded that Germany owes a large amount of money to the US. Merkel had to explain to Trump the basis of trade with the EU, and Merkel showed no weakness in the face of Trump. Photojournalist Jesco Denzel documented the game between nations on international occasions.



Fig. 6. German Chancellor Angela Merkel gazes at U.S. President Donald Trump at the G7 summit.

Finally, news photography should pay attention to the value of information. There are five W's in news communication, namely What, Where, When, Who, Why, which are the basic elements of news. If pictures cannot show all the elements, the text should be used to assist. Having these five elements is not necessarily high-quality news, but valuable news reports must have these five elements. Whether the information has a value directly determines whether the news has value. It is worth noting that news photography is very likely to bring utilitarianism to news communication, thus affecting the value of information.

Jeremy Bentham is a philosopher of utilitarianism. Utilitarianism is the theory of how people react to what is happening, including happiness, sadness, positivity, and negativity [6].

In a sense, photography is a moment of an event, which is likely to be taken out of context. In other words, a photo in many cases does not represent a news event, sometimes it can be counterproductive. This will lead to some media's utilitarian reports and media bias. If the image of the willful imagination, distortion of the facts, and random reports are contrary to the objectivity of the news, the information of these reports will lose value. Therefore, the nature of news affects people's view of the world. If the media is full of distorted news and worthless news, it will not only distort people's cognition of the world but also cause social unrest [7].

Photojournalist Robert Cohen captured images of demonstrators hurling Molotov cocktails and tear gas at police during protests in the US state of Missouri in 2014. The iconic image was part of the Pulitzer Prize-winning St. Louis Post-Dispatch. Protester Edward Crawford was charged with two counts of assault and interference with a police officer. The investigation team later discovered that Crawford's children were present and that he had acted to protect his four children. Crawford told the St. Louis Post-Dispatch that he did not throw Molotov cocktails at police, but just threw the flaring canister out of sight of his children. Cohen's original purpose remains a mystery, but the fact remains that the photograph did not convey the intention. The Pulitzer Prize has brought many benefits to Cohen's career, including increased visibility in journalism and increased income. At the end of The Crawford charges, he was found dead in his cars, although the death was announced as suicide, it still caused a huge doubt [8].

B. Professional Innovation

The other development direction of news photographers is professional innovation. The development of news cannot be separated from innovation, which is mainly reflected in the innovation of form and thinking in the digital age.

1) *The innovation of form.* In the era of paper media, text and pictures are the common methods of news. In the era of new media, video, audio, interactive map, 3D, VR and other means have emerged, which greatly enhances the authenticity and experience of news [9]. However, the digital media era of great change in the professional development of news photographers has brought huge challenges. Photographic equipment began to spread a photojournalist lost the professional advantage. Only information laboratory at northwestern university called the Stats Monkey software programs should be drafted with impeccable English in a few seconds much news, although it is limited to baseball and can see that the machine is instead of Journalists. In the text, images are subject to the impact of time, the development of the multimedia news story became a reporter's professional direction.

In the age of information explosion, audiences need rich and vivid stories more than ever. About Australia, for example, potato chip bags on the environment pollution problem, interactive maps can show whether Australia has relevant collection points and distribution and let readers feel

that the government attaches great importance to Australia. With a video or audio show, relevant experts interview can be more real more persuasive. Coupled with the use of images and the design of the layout, the whole story is vivid and real multimedia. Multimedia news stories are much more engaging than traditional text reports. This requires a variety of skills including video editing, copywriting, new media release, and more.

2) *The innovation of thinking.* The innovation of thinking should be closely combined with the audience. Most people do not like to read news reports far away from them. For example, a small farmer may not be interested in the trade war between China and the US. Therefore, journalists should try their best to report events that are closely related to the masses. Farmers must be interested in the price changes of agricultural products, market demand and other information. It is worth noting that news thinking innovation should avoid news entertainment, and should not only consider the speed of news dissemination and audience rating. The excessive entertainment of news has invaded the media space and the audience's attention.

III. THE CONTRIBUTIONS TO JOURNALISTIC DOCUMENTARY PHOTOGRAPHY

On the basis of journalistic aesthetics and professionalism, this paper will evaluate the contribution of journalistic documentary photography. News documentary photography to maintain fairness and justice in the world such as war photojournalists will be presented to the world. The cruelty of the increased people's yearning for peace recorded many historic moments including the Vietnam war, gulf war, the Rwandan genocide, war in Chechnya, Russia 911 event, the Syrian conflict and so on. These pictures are moving, extremely dramatic and shocking, exposing the greed of human nature and the struggle for interests. In 1914, the outbreak of World War I, large-scale slaughter was born on the European battlefield. Airplanes, tanks, flame throwers, submarines, and gas are large-scale applied for the first time, and millions of lives are lost. At the same time news photography rapidly advanced on the battlefield.

During the First World War, the concept of "documentary truth" appeared for the first time, and photography became a medium to report the war [10]. By the time World War I broke out, smaller cameras and film were already available, and Kodak introduced the Brownie camera in 1900, so photographers could take pictures in poor light conditions. The first photographer appointed by the British was Ernest Brooks, who was tasked with documenting the brutal Gallipoli War, in which Allied forces tried and failed to capture the Ottoman capital of Constantinople. Without photography to record these tragic images, we will never understand how the world war brought the human population crisis. The publication of *The Photographic History of the Civil War* and *The Photographic History of the First World War* intuitively presented pictures of the war to the whole world and reinterpreted human thinking on the war [11]. In addition, in November 2020, the Afghan Times reported that Australian special forces stationed in southern Afghanistan had killed innocent civilians, which caused widespread

condemnation around the world. The Brereton War Crimes Report says 19 soldiers from Australia's special air defense forces beat and killed at least 39 Afghan civilians, including children. Over the past four years, the team has interviewed 423 witnesses and received more than 20,000 documents and 25,000 images [12]. Reports and evidence show that soldiers carried out a number of gruesome acts including slitting throats, killing counts, having cows stomp on civilians, and drug and alcohol abuse (Fig. 7 and Fig. 8) [13].



Fig. 7. Australian special forces shot dead Afghan civilians.

(Source: <https://www.dailymail.co.uk/news/article-8966283/World-reacts-fury-unforgivable-war-crime-allegations-against-Australian-soldiers.html>)



Fig. 8. Australian special forces made bison tramp Afghan civilians.

(Source: https://www.youtube.com/watch?v=-GPpITKCYpQ&feature=emb_imp_woyt).



Fig. 9. Soldiers in the Chechen conflict.

(Source: <https://expertphotography.com/war-photographers/>).

The images exposed the brutality and contempt for human rights of Australian special forces, directly forming evidence of war crimes committed by Australian troops.

Several important war photojournalists deserve attention. Photographers risk their lives to cover conflict and combat, and without their bravery and faith in their profession, some issues may never be known to the public. James Nachtwey is an American photojournalist and war photographer who was wounded by a grenade while working in Baghdad in 2003. He has won two World Press Photography Awards and five Robert Capa Gold Medal awards. Since the age of 36, James has worked as a photographer for Time magazine. He also

helped set up the VII Photo Club to help war photographers around the world. He has captured images from all over the world, most notably the Chechen skirmish, the Yugoslav war and the Afghan conflict [14].

Nick Ut is a Vietnamese-American photographer who worked for the Associated Press in Los Angeles and won the 1973 World News Photo of the Year for "The Horrors of War." The scene in the picture is that some children ran away from napalm during the Vietnam War (Fig. 10) [14]. Nick's works directly expose the nature of war -- death or imminent death, which has a strong realistic documentary style.



Fig. 10. The soldiers who ended the battle.

(Source: <https://expertphotography.com/war-photographers/>).

Wayne Miller is a war photographer whose vivid images from the front line capture a world in transition in the 20th century. After attending art school for a few years, Mr Miller joined the navy and decided this was what he really wanted to do. He said I would devote myself to photographing humans. He joined the Special Division of Naval Photography during World War II and worked in the Philippines, France and the United States. He was one of the first people to photograph Hiroshima after the atomic attack on Japan in 1945. Miller's most famous photograph, shown in Fig. 11, shows an injured pilot being pulled out of a damaged plane. After the war, Miller returned to Chicago and, with funding from the Guggenheim Foundation, made a number of pictures about black people on the black movement and black life on the south side of the city (Fig. 11) [18].



Fig. 11. Wounded pilots in World War II.

(Source: <https://theculturetrip.com/north-america/usa/articles/12-extraordinary-ww2-photographers/>).

Margaret Bourke-White was the first accredited female war correspondent and the first female war photographer to enter a war zone during World War II. She covered death camps, riots and posed with celebrities like Roosevelt,

Gandhi, Selassie, Churchill, Pope Pius XII, and Stalin[15]. "In 1941, as the Only Western photographer, she witnessed the German invasion of Moscow. She was the first woman to accompany an American Air Corps on a bombing mission in 1942. And she traveled with Patton's troops across Germany in 1945 to liberate several concentration camps "[16]. Like other photographers, she was constant in danger in the war. From the Atlantic to North Africa, her ship was torpedoed, but she survived, and her most famous works include the concentration camp prisoners and the bodies of the gas. (Fig. 12).



Fig. 12. Grieving beside a scorched friend.

(Source: <https://www.icp.org/browse/archive/objects/man-grieving-next-to-the-charred-body-of-his-friend-germany>).

Margaret Bourke-White, a war photojournalist who often worked in dangerous environments and captured images in combat many times, was eager to report on the operations of the U.S. Eighth Air Force in 1942. At the same time, she was already in danger of covering the German bombing of Moscow in 1941. Fighting and working on the ground and in the air has become routine for her [20]. In Fig. 13, Margaret captures armored troops installing a 500-pound An-M64 general bomb for use on targets in Europe.



Fig. 13. Install B-17 bombs destined for targets of Europe

(Source: When Maggie flew with the forts: Margaret Bourke-White risked all to capture U.S. air operations over Europe in World War II).

Moises Saman is a Hispanic-American photographer based in Tokyo who is considered to be one of the leading conflict photographers of the era. She has received numerous awards for world press photography including the International Picture of the Year award and the Guggenheim Fellowship. He is best known for some of his photographic work in Iraq, and he also covered the Egyptian revolution. His book *Discordia* showcases some of his graphic work as well as the more influential Arab Spring Revolution (Fig. 14).

Wars and many atrocities are captured in famous photographs, and some truths are embedded in cliches such

as "If it bleeds, it leads". The recording of photographs seems to be connected with photojournalism. Susan Sontag once wrote that photography has been associated with death ever since the invention of the camera in 1839. Initially, photography was used as a propaganda tool to support the war, but since the beginning of World War I, photography has had the opposite effect. Images of the tragic faces and mutilated limbs of dead or dying soldiers shrouded in hunger, injury, cold and death in the harsh conditions of combat found their way into newspapers and popular print media (Fig. 14). Thus arose the tension between the desire to win the war and the end of war and suffering. In the early days after the invention of the camera, efficient photographers replaced sketch artists on the battlefield, vividly documenting soldiers' heroic victories and heroic sacrifices [19].



Fig. 14. Successful rescue.

(Source: <https://expertphotography.com/war-photographers/>).

IV. LIMITATIONS OF NEWS PHOTOGRAPHY

A. Transmission

Transmission flow and the velocity of propagation ways, the spread of photographic equipment photo journalists lost professional advantage by complete coverage of the popularity of smart phone 4G and 5G. With the rise of social media platforms, the news is no longer exclusive to the news industry, and the role of communication is becoming more civilian and popular. The traditional process of news communication is that journalists collect materials on the spot, send them back to the editing room for editing, review and then release them. The communication process under digital media can be completed entirely on mobile phones, greatly simplifying the communication process. However, with the emergence of information explosion, the words such as rumor, fake news and making news to attract eyeballs also appeared one after another. Social media news gradually lost its authority and credibility, and even a rumor led to the misunderstanding of the whole society, causing harm to the stability of the society. The simplification of the communication process leads to the acceleration of the communication speed. For example, when social news occurs in a certain area, bystanders nearby can record it with their mobile phones and publish it on the social media platform. When the photographer arrives at the scene, the scene may have been changed and the original appearance cannot be recorded. By the time a photographer shoots, processes and releases a story, the attention and clicks may have dropped dramatically. Over time, the advantages of

photojournalism will gradually decline.

B. The Creation of a News Moment

In order to enhance the emotional expression, many photographers will pose. Originally photography is to retain a moment, but many photographers will create a moment. In this way, the news is likely to lose or exaggerate the truth. During the First World War, photographer Ernest Brooks tried to recreate the fighting scenes after the war, even pose them directly before other journalists exposed the fakes. In 1916, Britain introduced the Propaganda of the Facts policy, which prohibits posing and faking photographs because it undermines the credibility of Allied forces. In historical war scenes, there are a lot of pictures that don't match the actual situation including the poses and the movie screenshots. In addition, he often controls light and shadow in his shoots to maximize his emotional impact. So Brooks was criticized by historians [17].

V. CONCLUSION

This paper explains the two development directions of photojournalism in the digital age including that photojournalists should improve news aesthetics and strengthen professional innovation to adapt to the development requirements of the era of information explosion. Then journalism documentary photography has contributed to world peace particularly by documenting the cruelty and inhumanity of war. However, the development of news photography also has certain limitations that the weakening of the professional advantage of photojournalists and the problems of posing and forging photos throughout the ages can not be ignored in the digital era. With the further development of the Internet and media, the demand for images especially high-quality photography will also increase.

CONFLICT OF INTEREST

The author declares no conflict of interest.

AUTHOR CONTRIBUTIONS

Fengnan Zhao was responsible for all work on this paper. Firstly, Mr. Zhao collected relevant material and analyzed the photographic elements in recent hot events. Secondly, the author analyzed classic photography works and photographers in history. In the end, recent and historical documentary photography were used for research and analysis of relevant data. The author finally confirmed the final version.

ACKNOWLEDGEMENT

Special thanks to Professor Ken Light for teaching relevant knowledge and Jiaqiong Sun for guiding the thesis, including topic selection ideas and modification.

REFERENCES

[1] Chicago sun-times lays off all its full-time photographers. (2021). [Online]. Available: <https://www.nytimes.com/2013/06/01/business/media/chicago-sun-times-lays-off-all-its-full-time-photographers.html>

[2] Understanding basic aesthetics in photography. (2021). [Online]. Available: <https://petapixel.com/2016/08/08/understanding-basic-aesthetics-photography/>

[3] R. Datta, D. Joshi, J. Li, and J. Wang. (2021). Studying aesthetics in photographic images using a computational approach. [Online]. Available: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.81.5178&rep=rep1&type=pdf>

[4] K. Bohn, "50 Principles of composition in photography," British Columbia: CCB Publishing, 2013.

[5] J. Palumbo. (2021). The most powerful moments in photojournalism in 2018. [Online]. Available: <https://www.artsy.net/article/artsy-editorial-powerful-moments-photojournalism-2018>

[6] Ethics and Diversity in Media. (2021). [Online]. Available: <https://uajn499.wordpress.com/2017/04/04/positive-and-negative-utilitarianism-in-the-media/>

[7] L. Bozell, *Weapons of Mass Distortion*, New York: Three Rivers Press, 2005.

[8] D. Magazine, The Implicit Bias in Photojournalism | Dame Magazine. [Online]. Available: <https://www.damemagazine.com/2020/06/11/the-implicit-bias-in-photo-journalism/>

[9] Nieman Reports. (2021). Will Machines Replace Journalists? | Nieman Reports. [Online]. Available: <https://niemanreports.org/articles/will-machines-replace-journalists/>

[10] K. Morrow. (2021). The birth of Photojournalism. [Online]. Available: <https://www.historynet.com/the-birth-of-photojournalism.htm>

[11] M. Meigs, (2021). Photographic Histories of the Civil War and the First World War and Rebirth.

[12] What Did Australian Soldiers Do And is Anyone Going to Jail? What You Need to Know. [Online]. Available: <https://www.abc.net.au/news/2020-11-19/afghan-war-crimes-report-released-what-you-need-to-know/12899880>

[13] L. Parsons. (2021). *World Reacts with Fury to Alleged War Crimes of Australian Soldiers*. [Online]. Available: <https://www.dailymail.co.uk/news/article-8966283/World-reacts-fury-unforgivable-war-crime-allegations-against-Australian-soldiers.html>

[14] C. Hul. (2021). *10 Most Important War Photographers You Should Know!*. [Online]. Available: <https://expertphotography.com/war-photographers/>

[15] E. S. Robert, "Margaret bourke-white and the communist witch hunt," *Journal of American Studies*, vol. 19, no. 1, pp. 5–25, 1985.

[16] B. Siegel, "An eye on the world: Margaret Bourke-White," *Photographer*, 1980.

[17] Ernest brooks, photographer at historic camera. (n.d.). Historic Camera: Camera & Photography Information Resource. [Online]. Available: https://historiccamera.com/cgi-bin/librarium2/pm.cgi?action=app_display&app=datasheet&app_id=3580

[18] W. Yardley. (2013). *Wayne Miller, 94, Photographer of War and Peace, Dies*. *New York Times*. A18(L), [Online]. Available: <https://link.gale.com/apps/doc/A331178057/AONE?u=unimelb&sid=AONE&xid=9cacb0d7>

[19] J. Scott. (2006). Photography and forgiveness. *Queen's Quarterly*. 113(4). [Online]. Available: <https://link.gale.com/apps/doc/A160110350/AONE?u=unimelb&sid=AONE&xid=ad883d9d>

[20] "When maggie flew with the forts: Margaret bourke-white risked all to capture U.S. air operations over Europe in World War II," *Military History*, vol. 31, no. 1.

Copyright © 2022 by the authors. This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited (CC BY 4.0).



Fengnan Zhao was born in Changzhi, Shanxi China in 1995. He holds a bachelor of arts degree from Sichuan University of Media and Communication, China, and is currently studying for a master of international journalism at the University of Melbourne, Australia. His major research interests are in the field of media and communication. During his undergraduate period, he served as the host and location reporter of the school news channel. After graduation, he worked in the municipal TV station for one year, and successively conducted research on the reporting of international and local news reporters. Mr. Fengnan did a lot of research for the writing of the paper, including consulting materials and working research.