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The Impact of Photography in a Developing Economy (Pp. 179-190)

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Abstract

Photography as an image-making process is not quite appreciated by budding artists and professionals as an art form. This study is thus aimed at advancing photography as a versatile creative medium of expression and a veritable tool for research and skill acquisition for employment generation irrespective of one's chosen career. A number of literatures were reviewed to elicit information about the subject content of photography which discussed the characteristics, types, phases in its historical development and its role in a developing economy. It is found out that photography is a potentially great creative art. In consequence, both professionals and amateurs are encouraged to take to photography not only as a recreative venture but as an employment generation medium for sustainable growth in a developing economy.

Keywords: Communication, optical image, daguerreotype, digital, automatic recording, light.

Introduction

In contemporary society, there is no other form of communication that moves us to the same extent as photography as an art form. It is a universal language (Sheridan College, 1983:15). This subject matter had continued to evolve gaining strength from one generation to the other yet the character of this

creative phenomenon is not quite perceived and appreciated by budding artists and other professionals. Effort is directed to other forms of artistic production such as painting, textile design, sculpture, graphics and advertising design, drawing and ceramics amongst others. Over ninety percent of most Art Exhibitions organized, scarcely embrace photography being displayed as an art form. It is at best used in representing these genres listed above and thus relegated to a subordinate position to other creative efforts. This state of affairs has not aided or advanced photography as a versatile creative medium of expression. It is on this backdrop that the writer seeks to illuminate the essence of photography and unfold its impact in developing economies. One of the essences of the Millennium Development Goals (MDG) in modern societies is the acquisition of entrepreneurial skill for which the art of photography can provide to the teeming population irrespective of their chosen career (NEEDS 2004:5). Thus, its impact will make the society a better place to live in. In this paper therefore, attempt is made to state what photography stands for, its characteristics, types, phases in its historical evolution and its impact in a developing economy.

The Concept of Photography

Photography is essentially the production of a permanent record of an image by the combined action of light and chemical processing (Encyclopedia Americana International, 1995: 306). The word photography is derived from the Greek word *photos* (light) and *graphos* (writing) which means drawing with light (Adewunmi and Onuora, 2006:1). As a result of advances in technology, the photographic process has to be redefined. Initially, photography refers to the formation of optical images projected by a lens in a camera onto a film or other material carrying a layer of light – sensitive silver salt, which is later developed in a mild acid bath to form the negative from which several copies can be produced. Photography thus is the result of the sensitivity of silver compounds to light. It undergoes a chemical change which causes it to become developable. The developing process (immersion in a chemical solution) causes the exposed bromide to reduce to metallic silver, forming an image relative to the intensity of the light to which it was exposed. The resultant image in which the lightest portions of the subject become the darkest areas of the film and the darkest portions of the subject become the lightest, more transparent areas of the film is called a negative. In order to obtain a positive image with light and dark areas corresponding to those of the original subject, the negative must be printed. This is done by placing it in contact with a piece of sensitized paper and exposing it to light

in the same manner as the sensitized film, but the light values, having become reversed on the negative become reversed again on the sensitized paper, thus resulting in a positive image. It is one in which the tonal values correspond to the original.

In an extended sense, photography also covers images formed by certain invisible radiations (ultra violet and infrared rays) and images recorded in other sensitive materials not containing silver by means of chemical or physical processes or both. Related to photography is image recording by x-ray, electron beams and nuclear radiations (radiography) and the recording and transmission of light images in the form of electromagnetic signals (television and video tape) (Encyclopaedia Americana International, 1995: 328).

Presently, photography has acquired a new definition. This is a result of the breakthrough in digital photographic practice – the most recent technological invention in contemporary photography. This process involves the use of a digital camera – a sophisticated and complex computerized machine which does not require the use of film. Images recorded are stored in a memory. Digital photography is thus a process of recording the image of an outside scene with a light-tight box with a lens and CCD (Charged Couple Device) which sensors the image in place of the film. The full-frame image captured is displayed on the LCD (Liquid Crystal Displays) or Thin Film Transistor (TFT) view screen. The LCD is a kind of electronic screen or monitor which allows the viewing of the image that is in focus, unlike the film camera which records the image, the digital camera stores the image taken in a memory card. The memory card depending on its capacity can save far more images than is possible with a length of roll film and at higher resolution (Bryan, 2005: 4 – 20). Photography as a process thus have a powerful aesthetic value not just as a means of taking pictures but for documentation and history.

Characteristics of Photography

Photography as a means of visual communication and expression, has marked aesthetic capabilities. It records instant or immediate images formed by a lens in a camera. With modern materials, the processing may take place immediately or may be delayed for weeks or months. When the image is finally processed the elements are guaranteed. This feature is unique to photography and set it apart from other ways of picture making.

The photography can contain more than the photographer can see. The first daguerreotypes were praised because of the amount of detail recorded by

them. Looking at one with a magnifying glass was like looking at nature with a telescope.

High speed photography has made visible motion, man has never before seen. With material sensitive to invisible radiation, hidden aspects of nature can be revealed, and by a combination of photographic, electronic and space technology even the planets can be observed in new ways.

The seemingly automatic recording of an image by photography has given the process a sense of authenticity shared by no other picture-making technique. The fact that the photograph can show more than the eye can see and that the image is not filtered through the brain of a man and put down by the skill of his hand has given it value as evidence. The photograph has become so much a substitute for reality and of such apparent accuracy (The Encyclopaedia Americana International Edition, 1995:307).

Furthermore, the final picture can be made of almost any size. The ease with which a portion of the negative can be used for the final picture and the relatively short length of time required to make pictures shows the uniqueness of this image-making process. It has the power not only to persuade as well as inform but it is taken as documentary and a believable evidence.

Types of Photography

Photography is considered as either *still* or *motion-picture*.

Still photography records single self-contained images that cover principally the recording of optical images formed by a lens in a camera and the duplication and reproduction of such images by light action (printing) to yield final pictures for various purposes. Generally, still photography is considered under two categories. First, is pictorial and record photography the aim of which is to yield a more or less accurate representation of an object photographed as an end in itself. The other is applied photography in which the photographic image is an intermediate stage of or serves as a tool for other processes and procedures. Examples of applied photography are photomechanical reproduction for the graphic arts field, making printed circuits, photographic templates and the use of photography in measurements.

Motion-picture photography otherwise known as cinematography involves the use of a continuous strip of film which records sequences of images

representing successive movement or phases of a subject in motion. Suitable projection is then used to recreate the illusion of movement (The Encyclopedia Americana International Edition, 1995:328). With digital photography, successive movements of activity or action are stored in storable units such as memory card, diskettes and CD/DVDs which are replayed with certain in built functions in the electronic device to create the illusion of movement.

Historical Development

The photographic practice prevalent today started from a very humble beginning with the artist. In the ancient times, the artist used to be the photographer. This he does by way of sketching/drawing when called upon to record an event or ceremony. From the Artist stage, it evolves into the pin-hole camera, which is the earliest known type of camera. The pin-hole camera is a light-tight box fitted with a pin-hole at one end. However, the forerunner of the camera was the camera obscura, a dark chamber or room with a hole in one wall through which images of objects outside the room were projected on the opposite wall. This principle was probably known over one thousand years ago and was described in the manuscript of Leonardo da Vinci. Later, the Italian scientist and a writer, Giovanni Battista Della Porta carried this principle a stage further in the sixteenth century and showed how a greatly improved image could be made by inserting a lens into the hole. Indeed, it is this improved version that was known as the camera Obscura. Various types of camera Obscura were in use by artists in the seventeenth century.

Smaller, portable camera obscura models were made, in which the image was reflected onto a ground glass screen. This is the same principle as the photographic camera, except that it cannot produce photographs. Although, the blackening of silver salts was known in the sixteenth century and possibly earlier, it was not until the early eighteenth century that it was recognized that the darkening was caused by light and not heat (Beal, 1975: 40 – 44).

Works of Pioneers

Photography came into being through the artistic aspirations of two Frenchmen, Joseph Nicéphore Niépce and Louis Jacques–Mande Daguerre, and two Englishmen, Thomas Wedgewood and William Henry Fox Talbot at the beginning of the nineteenth century.

Niépce, an amateur inventor made his contribution to photography through his interest in lithography. Niépce initially relied upon the artistic skill of his

son who copied by hand his drawings onto the lithographic stone. But when his son entered military service, he was left without a draughtsman. Not artistically trained, he began to work out a way by which light could draw the pictures he needed. Using a type of asphalt (bitumen of Judea) which changes its solubility in oil of lavender according to its exposure to light, he succeeded in 1826, in making a crude photograph of the barn yard from an upper window of his country estate. The exposure was so great – a matter of several hours – that the shadows were obliterated as the sun moved from East to West. This world's first photograph which is now preserved in the Gershein collection at the University of Texas, showed the path that others were to follow with more success.

Daguerre was a professional scene painter. Like so many other artists, Daguerre made his preliminary sketches by tracing the images produced by a Camera obscura – a box with a lens at one end, which threw an image on a piece of ground glass. After some time, Daguerre began experiments in recording the camera image by the spontaneous action of light. Learning of Niépce's work, he wrote to him and in 1829 the two men formed a partnership. On Niépce's death in 1833, Daguerre confirmed the research alone, and by 1837 he had produced a detailed photograph of his studio on a silvered copper plate. In 1839 Daguerre and Niépce's son sold full rights to the daguerreotype and the heliograph (as Niépce had named his process) to the French government, in return for annuities for life. To make a daguerreotype, a silver plated sheet of copper was made light sensitive by exposing the silvered side to the fumes of iodine, which produced silver iodide. After exposure to light in a camera, the plate was exposed to fumes of mercury, which formed an amalgam with the nascent silver formed in the areas of the plate that had been exposed to light. The picture was fixed (made permanent) by removing the unaffected silver iodide with sodium thiosulfate, then called the hyposulphite of soda.

Thomas Wedgwood in 1802 reported his experiments in recording image on paper or leather sensitized with silver nitrate. Although, he could record silhouettes of objects placed on the paper, he was not able to make them permanent and to his disappointment, he failed to record a camera image.

Talbot trained as a scientist at Cambridge University, unaware of the work of Wedgwood and the French pioneers, was led to invent a photographic process because of his inability to draw landscapes. On a holiday trip to Italy in 1833, the idea came to him of recording by chemical means the images he

observed in his camera obscura. By 1835 he had a workable technique. He made paper light sensitive by soaking it alternately in solutions of common salts (Sodium Chloride) and silver nitrate. Silver Chloride was thus produced in the fibres of the papers. On exposure to light, the silver Chloride became finely divided Silver, dark in tone. He decreased the sensitivity of the unexposed Silver Chloride by washing it in a strong solution of Sodium Chloride. The result was a negative from which he could make any number of positives simply by putting fresh sensitized paper in contact with the negative and exposing it to light. Later, upon the suggestion of the scientist Sir John F.W. Herschel, he fixed his photographs with sodium hyposulphite (now called Sodium thiosulfate).

When news of Daguerre's process reached England in January, 1839, Talbot rushed publication of his photogenic drawing process and subsequently explained his technique in full detail to the members of the Royal Society – six months before the French government divulged working directions for the daguerreotype (The Encyclopedia Americana International Edition, 1995: 309 – 312). There were many others who had similar techniques and who were to claim priority, but to Talbot and Daguerre are owed the two basic processes that were to sweep across the civilized world and establish photography as the most facile and convincing way to produce pictures. Thus, modern photographic practice evolved through enhanced development from these processes with the calotype and collodion processes through the instantaneous and Dry plate processes involving the use of the Polaroid camera to the present day digital photography.

Photography as an art Form

Ninety-nine percent of all successful photographic images have relied on the photographer's knowledge, skill and talent in setting a creatively correct exposure and in creating a well balanced and compelling composition. In composing the image to be taken, knowledge of the principles and elements of design is basic. The relationship between the foreground and the background is given adequate attention for clarity depending on the effect that is desired (Adrian 2004: 6–10). Photographs as evidence of an event are of such strength that it has dominated the evaluation of photography as an art form. Photography has been used over and over again as a foil by art critics to denounce painting that rely heavily upon exact representation of subject matter. In truth, photography is not the quasi-automatic process that is implied in a technical definition.

The photographer has at his command a variety of controls. The image can be modified by the optical characteristics of the lens. The type of sensitive material used to record the image is a further control and the contrast between highlight and shadow can be changed by variations in development. In printing the negative, the photographer has a wide choice in the physical surface of the paper, the tonal contrast and the image colour. The most important control is, of course, the photographers vision. He chooses the vantage point and the exact moment of exposure. Through experience, he knows how the camera will record what he sees. He learns to pre-visualize the final print. If he has visual imagination and perception, he can make more than a passive record. He can express universal qualities. He can extend the vision of the viewer.

The photographer may through a process called photomontage, present two or more photographic images together as a single composition by pasting cut-out photographic prints on a support or by projecting separate negatives on photographic paper that has been masked so that only portions are exposed at a time. By the latter technique, double exposures can be made and thus a wide variety of effects, unique to photography can be produced. There is also a creative technique – photogram which involves the arrangement of small miscellaneous objects directly on photographic paper. Upon exposure to light, the paper darkened more or less or not at all, according to the opacity or transparency of the objects (The Encyclopedia Americana International Edition 1995: 316 – 323).

As regards to digital photography, with the artists acquisition of some image processing softwares, the possible enhancement that one can make are endless. One can make adjustments to brightness and contrast, change the colour, and modify selected areas of images using dodging and burning techniques. You can work in colour or black and white and even apply sepia tones to images. Using photoshop is less involving than the use of darkroom chemicals. In addition, there are lots of tools – pencils, brushes and air brushes for retouching images, and filters for blurring, sharpening, applying textures or distorting images. Even certain photographs which may be considered an error may turn out to be an interesting statement – the result seems fascinating (Busselle, 2002: 20 -29).

The Role of Photography in Society

Photography serves as an enhancement tool in Journalism. From the outset, photography has served the press. Magazines and Newspapers now turn to

photography for reporting topical events and the profession of illustrator, which so many artists in Europe and America had followed gradually became obsolete. In 1936 in Europe and America, a formula was evolved in which the picture editor, photographer, researcher and writer constituted a team. The result is the creation of a definite photographic style. Photographers are briefed for their assignment and encouraged to take great quantities of photographs, in order that editors might have a large selection. The visual organization of the picture story was carefully planned for maximum reader impact. The opening photograph of the picture essay as this type of reportage came to be known, established the situation, and like written narration, there is a visual climax and a definite conclusion. Usually, the photographs were chosen and arranged on the pages before the accompanying text was written. Unlike the illustrated article, the picture essay quite logically is based upon the photographs, and the text is devoted to information that cannot be expressed visually – names, dates and places. With the upcoming of digital cameras, memorable groups of photographs have been taken for picture magazines. The photo journalists thus use photographs to authenticate a story.

Photography as an aid to Effective Advertisement

Photography enhances realism in the advertisement of goods and services, stimulating the feelings of the audience. It makes advertisement to come alive, stimulating mood, emotion and sensitivity. The speed, flexibility and economy of photography give it a better advantage over drawing or painting. The indispensability of advertising in the promotion of goods, service or idea cannot be under estimated. With photography, a graphic account of the message or intent of the sponsor is made quite simple and quickly responded to by the target audience.

Education and Research

Photography can be used in a number of fields. Such as teaching, research, note keeping, journal illustration, recording evidence etc. Its use in teaching particularly in the natural and biomedical sciences which requires abundant use of photographs needs to be appreciated. Much time is saved when a judicious balance is made in the use of words and pictures. Descriptive photographs are typical of the way that photographic illustrations can impart and correlate information about small entomological subjects. In biomedicine, Dermatologists, Ophthalmologists, dentists and research laboratory investigators particularly, have a great need for photography. In Agronomy, academic and economic agronomists, country agents, plants and

flower hybridizers and others in the agricultural field need photography, both in the dissemination of information and in research. In archaeology, the archaeologists and conservators at the field site and more so in the museum, have recourse to photography (Gibson 1970:6 –10). They serve as reference materials that are quite convincing. Photography facilitates the art of observation, selection and recording objects, figures and incidents of interest:

Industry and Employment

Photography is a potential provider of source of livelihood in society. Ever since this image-making technique came alive at the middle of the nineteenth century in Europe, the photographic industry has continued to maintain place with modern trends particularly with step up in technology. From the production of sensitized materials to produce the desired picture to the digitalized mode of printing pictures, the photo-industries have continued to wax stronger. The world's largest producer of photographic goods is the United States, followed by Japan, Germany, Great Britain and France. They do not only create employment but that exports from these photo supplies form a reasonable sum of foreign exchange in the economy.

In Law Enforcement and as an Evidence

The forensic photographer needs photography to make records which serve as a more believable evidence in the adjudication of justice. Through the law courts, the police and other national security apparatus, photography has provided a unique sense of authenticity shared by no other picture – making technique. The fact that the photograph can show more than the eye can see and that the image is not filtered through the brain of a man and put down by the skill of his hand has given it value as evidence. The photograph has become so much a substitute for reality and of such apparent accuracy that the adage “The camera does not lie” has become a cliché. When a person does travel, he often seeks that which he knows from photographs and brings back his own photographs in which he and his family may sometimes appear, as evidence that he has been somewhere.

Photography as Documentary and Reference Material

The value of photograph as a record of the world and man's achievements had been established. This use of photography came to be called documentary in the 1920s by a group of motion – picture producers in Great Britain headed by John Grierson. They saw the great potential of the photographic image as believable evidence. But the simple record

photograph is not enough in itself. It must be endowed with compassion for the subject and a sense of beauty for the betterment of mankind.

Creativity and Entertainment

With the general acceptance of photography as an artistic medium, most museums today house collections of fine arts. The metropolitan Museum of Art in New York city has long considered photography a branch of the graphic arts and has a notable collection in its Department of prints and photographs. The museum of modern art also in New York city, pioneered through the formation in 1940 of a separate Department of photography. The international museum of photography at George Eastman House in Rochester, New York, is the largest museum of photography since the days of Daguerre. Both the Smithsonian Institution and the Library of congress, Washington D.C. have large collections of fine photographs. (*The Encyclopedia Americana International Edition*, 1995: 326). In recent times, most art exhibitions comprising Solo and group now showcase photographic prints, which serve as social commentaries in society. These photographs are transformed in such a creative manner that the viewer can read an inner message which is not visible upon the surface, but which is carried by it. The photographs communicate more than the subject itself. Certain photographs which may be considered an error may turn out to be an interesting statement. The result seems fascinating. Most families procure photo album – a collection of photographs depicting different memorable events in the lives of members of the family which is presented to visitors and thus provide a kind of entertainment. Without photography, the production of video tapes, CDs, DVDs and musical concerts which keep the home in good mood would not have been possible. The content of these video CDs and DVDs serve as medium of social cohesion and political emancipation of the people in society.

Conclusion

Throughout its history, there have been two complementary yet distinct aesthetic approaches to photography. There has been the recognition of the basic qualities of photography and the desire to make use of them in a functional way. On the other hand, there have been those who believe that the most aesthetic use of photography is to relate it to other medium. Since 1950 these trends have been pursued with equal vigour. Photography is a potentially great creative art. It is an impersonal method of expression, a more or less correct reflection of nature wherein (1) truth of sentiment (2)

illusion of truth of appearance and (3) decoration are of first and supreme importance.

Consequently, patronage in the use of photography by both professionals and amateurs should not only be seen as a re-creative venture but as an employment generation medium for sustainable growth in a developing economy. There is therefore the clarion call for its full integration and recognition among the other visual arts practice. Picture taking is a technique both for annexing the objective world and for expressing the singular self. Photographs depict objective realities that already exist, though only the camera can disclose them.

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