

Photography Documentation of Cultural Heritage; Pua Kumbu Textile of Sarawak, Borneo

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Abstract — The discourse on the image and the archive is critical in these times of higher capacity storage, bigger bandwidth, and larger than ever digital projections and display applications. As we move from giga to terabytes, machines are now equipped to handle and manage thousands of images, opening up possibilities of increasing the numbers in photographic documentation of culture and heritage. Data or photographic capture of a chosen subject has never been as liberated with this phenomena, thus the availability of DSLRs with more than 30MP picture taking capacity. This paper describes the technical and theoretical elements, as well as the output of images, of a documentary photography of the Pua Kumbu textile making of Sarawak, on the island of Borneo. The location of this documentary is the Garie Longhouse, situated on the bank of Kain River, a tributary to the Rajang River, in the district of Kapit, Sarawak. Three fieldwork of a week each were conducted over a period of one year, to document the processes, weavers, environment, tools, and the produced textiles. Isolated in the interior of Borneo, access to the longhouse is only via the river, which means 8 hours of boat ride on 2 types of boats from the International Airport of Sibu, Sarawak. As a common issue in documentary photography, which is; what is more important, the subject or the photograph, this paper will elaborate on the theories and practice when capturing the scenes and objects. The whole collection of images, with a pixel dimension of 4912×7360, averaging 15Mb (pre-processed), at 300dpi are intended for an interactive projected display in a full scale mobile exhibition, with selected images for large digital prints and a book publication.

Keywords – *Documentary Photography, Culture and Heritage*

I. INTRODUCTION

The author as a project director leads and directs a team consisting of a video production crew of 3 persons, a photographer doing panoramic photography, and a research assistant for documenting the documentary work and activities. At the same time the author is the documentary photographer for the subject, responsible for accumulating images of the processes, weavers, environment, rituals, artefact, and any other related cultural elements. The second author, who is the subject specialist, acts a mediator and interpreter whilst concurrently doing data collection and field analysis. These are the individuals, together with another field assistant, on the three excursions made to Rumah Garie Longhouse located by the Kain River in the district of Kapit,

Sarawak on the Island of Borneo. The dates of the excursions were 1. 19 – 24 August 2013 2. 5 – 11 February 2014 3. 24 – 28 August 2014. The three excursions form the visual (and audio) data capture using the mediums of photography, video, and sound recording. The capture is primarily for construction and communication of content through an Intermedia and Polysensory [1] exhibition that is to be staged in mid 2015. Prior to the first excursion, the data capture aim and objectives were loosely formed around the framework of getting as deep and as wide as possible, as far as visual data is concerned, on all the aforesaid items. On the subsequent excursions, the documentary photography framework were both expanded and confined to, 1. Inclusion of planned special rituals and processes by the weavers, and 2. Re-capture for improved images on the subject, respectively. The general approach of the documentary photography work is based on the fact that the body of work produced at the end of the process is underlined by a social investigation [2] of the Pua Kumbu craft. Whilst specifically, it is not a straightforward point-and-shoot documentation, as it needs to fulfill a certain aesthetical visual language and style, aimed to meet spectatorial and editorial measures. In this case, the mentioned exhibition with its interactive, intermedia, and immersive features, and printed publications that will predominantly revolve around the photographic images. It is also bearing in mind and holding on to the adage that it is not only about producing fine photographic images but also to a level of getting viewer's attention and involvement on the subject [3]. And the last guiding principle of capturing and communicating true records of real people, event, place, situation, and objects, without manipulation or staging [4].

The Pua Kumbu Craft

The Iban, indigenous group of Sarawak, Borneo is one that is exceptionally unique in its beliefs and traditions and, while there are few historical accounts before the 19th century, Iban oral history and genealogies stretch back twenty-five or more generations [5]. One of the arts and practices that the Iban continue to accomplish is the traditional natural dyed and hand woven textile known as pua (blanket). The process of producing pua cloth is known as ikat weaving. In this process, weavers tie off sections of either the warp or the weft to create a pattern that they will then dye, thus producing a resist-dye pattern. The warp ikat method is the main method employed

by the Ibans, where textiles are woven on a body-tension continuous loom, also called a back strap loom. Most motifs found on *pua* are anthropomorphic, zoomorphic, or representative of various flora or geometric patterns. Van Hout has noted that traditional images are seldom realistic, unless anthropomorphic or reptilian, and it is uncertain whether depictions are actual representations of the objects or animals, since “some patterns only resemble, but do not represent the objects they are named after” [6]. Zoomorphic motifs include birds, deer, lizards, crocodiles, and snakes. Authors report a wide variety of additional representations, including leeches [7], spiders and centipedes [8]. Some of the common floral motifs include creepers, the tree of life, rice and areas of rice cultivation, rattan, fruits, and flowers. In terms of geometric patterns, abstract hooks, scrolls, lozenges, and hooked diamonds are common. Although rare, motifs of human heads or references to headhunting were occasionally depicted on *pua*, and are becoming more common [9]. *Pua* is an Iban art that predominantly involves women and one that is traditionally associated with prestige and respectability. While Iban men traditionally dominated headhunting, the role of women is no less significant in this practice. *Pua* is believed to have power that comes from extraterrestrial phenomenon captured and pictured in the cloth. This belief is closely linked to a form of animism, the traditional religion of most Dayaks, which revolves around the belief that they are surrounded by an environment inhabited by various gods and spirits with supernatural powers, and that every part of the natural environment has a soul. Thus, all of these elements play a significant part in the designs that are woven. The weaving of *pua* is central to each weaver’s relationship with the spirits. Passed from mother to daughter, knowledge of weaving processes follows a “naturally sequenced order sanctioned by the spirit world” [10]. Mastery of this process is a way of determining a woman’s status as a weaver and within the community.

II. PHOTOGRAPHIC TOOLS

On all three excursions the cameras used are 3 units of full-frame NIKON Digital Single Lens Reflex; a D800 and two D800Es. These alloy-magnesium body cameras are preferred for their built, handling, durability, and weatherproof specifications. They were also preferred mainly for the massive pixel count of their 36.3MP CMOS sensor and ISO span of 100-6400 natively, expandable to a range of 50 ('Lo1') to 25,600 ('Hi2') equivalent. The models also come with a larger 3.2" LCD screen than its predecessor (D700), which makes for better review of images and menu selections. True to the manufacturer’s claims, they deliver low noise at high ISO settings, JPEG (Fine) files of between 8 – 15 MB per image, EXPEED4 fast and color-accurate processing, multi-point effective autofocus, and many more handy features for fieldwork photography. Lenses used are Nikon AF-S Nikkor 14-24mm f/2.8G ED, Nikon AF-S Nikkor 70-200mm f/2.8G ED VR II, and Nikon AF-S Micro-Nikkor 60mm f/2.8G ED. Additional accessories are Nikon SB910 Speedlights, Battery Grip, extra batteries with chargers, and a Gitzo tripod.

III. CONCEPTUAL FRAMEWORK, METHODS, AND TECHNIQUES

In the current situation where high-resolution photographic images has become a negligible issue with the technological advances of digital cameras, the principles of what makes great photography is still indisputable [11]. Whilst computational designers involved in data construction and display engineers and technicians are concerned with the issues of resolution for details and clarity of the photographic image, the capture process becomes the determining point. Being the first stage of culture and heritage information system of capture, construct, and communicate model, it is where the requisition starts. Especially if it also dictates that visual aesthetics is to be an integral element at the point of interface with the intended audience. Along with it comes the components or core criteria of documentary photography which are [12]; 1. The combination of artistic and technical competencies to denote scientific accuracy as well as creative connotations, 2. Purpose and motivation that references against the pre-determined constraints and requirements for ideological, editorial, and spectatorial needs, and 3. The narrative and storytelling elements to communicate and express factual records; decisively spared from manipulations, staging or reality distortions. A main concern in the field of documentary photography, and in all of photography as well, is the decision of emphasis i.e. ‘the subject or the photograph?’ [13]. In an ideal lighting situation, a subject can be captured easily as the camera just translates the light and shadow in front of it into an image. The challenge for the author is to create aesthetically interesting photographic images out of the subjects and scenes encountered during the fieldworks.

Visualization

The process of visualization is as important as the subject itself as it concerns the space, frame, and overall composition of which the subject resides in. The author believes and prescribes to Ansell Adams’ visualization definition; ‘a conscious process of projecting the final photographic image in the mind before taking the first steps in actually photographing the subject’ [13a]. As a standard practice, upon becoming aware of a subject, technical aspects are consciously put aside for some time to visualize a dynamic and interesting picture that would meet the spectatorial expectation. Only after establishing a point-of-view for the art, comes the decision of apertures, ISO, and other control features, which makes up the craft of documentary photography. Comparing what the camera has captured against the image that is visualized on the LCD screen, while the subject is still available, comes together into the method.

Unique Point of View and Anticipation

The author tries to establish a unique point of view of the subject as it can profoundly affect how the viewer will take to the photograph. Scrutinizing the subject for its most important facet or feature at first, the next step is to achieve a composition that emphasizes it, bearing in mind too that just a clear *view* of that feature does not guarantee a clear *point of view*. It takes more than just setting up the camera and zooming in and out to get a subject framed. The idea is to look at the subject differently, connecting with its element, and in doing so trying to make that connection work with the viewer. Anticipation is coupled with visualization, where there will be an image that might take place in terms of the subject movements, lighting conditions, background, or well-guessed

moments when they actually converge or happen. In most of the images captured for this project, the author would sit it out with the weavers, trying to understand what they are doing with their hands especially, and how it affects the weaving process and materials. This is also done with the anticipation of lighting conditions and other elements that may be included or excluded in the final photograph.

Wide and Telephoto

The wide-angle lens provides the opportunity for strong perspective effects. The author uses this tool to create images of weavers as bold elements in the foreground. With the subject dominating the foreground, the deep and diminishing background creates a dynamic contrast to the composition. Albeit some distortion, it is a reality that cannot be perceived by the human eye but nevertheless a logical view defined by the lens. In the images captured, there is a strong sense of place as most of the environmental elements in the background are in the composition while the subjects are boldly highlighted. Telephoto is about isolating an element or subject from the rest of the scene, although it is conventionally about getting a closer view (in frame) of a subject from a distance. The narrowing angle of view presents interesting and dynamic slices that to the author are creative compositional designs of a photographic image. Another distinctive feature of the telephoto is the compression of distance between the background and foreground where in this work some images are captured with this technique. To further add to the aesthetics of the said images, a small lens opening (f2.8) for an acutely narrow depth of field is applied to blur the background. It is also about photographing the subject from a comfortable distance without invading their physical space yet not too far away to become voyeuristic, whilst still maintaining a connection. In a reversal way from a wide-angle lens, the telephoto magnifies the background; the wide-angle shrinks it down or makes it farther away. In order to get a well-balanced and interesting relationship between subject and background, the author uses the technique of 'getting in closer with a wide' and 'stepping back further with a telephoto'.

Motion and Depth of Field

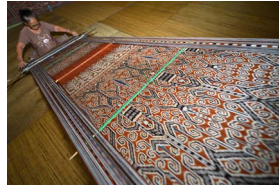
Shutter speed control is critical in stopping or suggesting motion in an image. On the former, it is quite a straightforward issue where faster shutter speeds will freeze the moment with subject in sharp focus. It is in the latter, where a more critical approach is required as it is about suggesting motion but having certain subjects in the composition focused in the same image. The author was presented with these types of scene in the excursions such as yarn spinning, where the spindle needs to be shown in motion while the person spinning has to stay sharply captured. Depth of field has a strong influence of directing the viewer's eyes to the emphasized area of the image. A shallow depth of field has a very narrow focused area in the overall image where the rest of the elements in front or behind it is out of focused. In reversal, a deep depth of field has everything in the image sharply in focus. In this situation, the author uses three features that affect the control for depth of field; focal length, distance to subject, and f-stop (aperture). A common problem encountered during the excursions is maintaining a desired depth of field of certain subjects without losing sharpness due to its length into the picture plane.

Other Processes

The Garie Longhouse does not have 24-hour electricity supply; instead a diesel-powered generator is turned on from 6PM and shut off at midnight. With the large amount of battery-requiring equipment that the team brought in for the documentary work, charging the batteries and laptops had to be managed well to sustain the daily requirements. As far as the photographic images are concerned, all images captured in the day (and night) are saved into the laptop at the end of each day. They number in the hundreds daily, amounting to more than 3 terrabytes at the moment, with a pixel dimension of 4912×7360 each; 8-15MB (pre-processed) at 300dpi. The process of shooting is often slightly awkward due to a wide language gap with the Iban speaking weavers and their culture of working quietly to themselves. In almost all situations involving the Pua Kumbu processes, they did not oblige to explain what they were going to do next, making it a constant shooting session throughout the excursions.

The following images are a selection from the excursions;





IV. CONCLUSION

The documentary photography of the Pua Kumbu Textile of Sarawak as culture and heritage entity is based on the idea of capturing the craft in its entirety. It involves photographing all the processes, weavers of Rumah Garie, their working and living spaces, tools, artifacts, and overall environment. This photographic exercise is not conducted from an exhibition-referenced brief but instead will determine the nature and visual quality of the intended exhibition. Thus, the art and aesthetics direction of images rest solely on the author as the leader of the visual data capture team. The author strongly suggests that a high-quality and high-resolution capture has to be given equal, if not more attention and emphasis as the data construction and communication stages.

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