

SINGLE SPATIOTEMPORAL DISPLAY: DOCUMENTARY PHOTOGRAPHY OF PUA KUMBU

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ABSTRACT

The paper is an articulation of the objective, process, and output of a photo-mosaic display of a documentary photography of Pua Kumbu. The photo-mosaic display is a combination of multiple-sized images printed on a single wall, viewed together with slide-shows on monitors. It discusses the objective of incorporating still with time-based images on one spatiotemporal platform, making it a unique viewing experience, through an explorative and experimental method of photographic image consumption [1]. Pua Kumbu is a traditionally woven textile of the Iban people of Sarawak and Borneo. It is a meticulous and complicated process using natural dyes and weaving techniques passed down from generations and practiced by the women of the longhouses. The documentary photography is an extensive coverage of the whole process of producing this craft, from preparing the yarn, through the making of the dyes to lastly, the weaving. The documentation also covers other contextual elements such as the environment, the weavers, and rituals. As in the principles of documentary photography, the images are a series of photographs, non-directed or staged, and underlined with a social investigation, specific to a thematic spectatorial expectation [2]. In this case to bring forth the hidden and almost unknown aspects and elements in the traditional weaving craft of the textile. The paper illustrates the photographer's point-of-views, from pre-photography work and literature review, photographing, post-processing and selection of images, design process of the display, and final installation. The photo-mosaic display was a feature in The Textile Tales of Pua Kumbu, A Polysensory and Intermedia Exhibition [3] in June 2015 at the Universiti Malaya Art Gallery, Kuala Lumpur.

Keywords

Spatiotemporal, Documentary, Pua Kumbu

PURPOSE

The purpose of this paper is to provide an overview of the design process of a single spatiotemporal photographic display created for the Polysensory Intermedia Exhibition of Pua Kumbu at the University of Malaya Art Gallery in June 2015. It shares the theoretical framework of documentary photography as well as the pre-photography work and literature review, photographing, post-processing and selection of images, design process of the display, and final installation.

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 [4]. 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” [5]. Zoomorphic motifs include birds, deer, lizards, crocodiles, and snakes. Authors report a wide variety of additional representations, including leeches, spiders and centipedes. 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. *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”. Mastery of this process is a way of determining a woman’s status as a weaver and within the community.



Pua Kumbu, traditional weaving craft of Sarawak.

METHODOLOGY AND PROCESSES

Fieldwork Activities

The author as a project director led and directed 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 was the documentary photographer for the subject, responsible for accumulating images of the processes, weavers, environment, rituals, artefact, and any other related cultural elements. These are the individuals, together with another field assistant, on 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 formed the visual (and audio) data capture using the mediums of photography, video, and sound recording. During 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 was based on the fact that the body of work produced at the end of the process is underlined by a social investigation [6] of the Pua Kumbu craft. Whilst specifically, it was not a straightforward point-and-shoot documentation, as it needed 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 predominantly revolved around the photographic images. It was 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 [7]. And the last guiding principle of capturing and communicating true records of real people, event, place, situation, and objects, without manipulation or staging [2].



The journey behind the fieldwork excursions to Rumah Garie, Kapit, Sarawak.

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 [8]. 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 [9]; 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?' [10]. 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' [10a]. 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 focus. 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.

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.

Post- Capture Stage

The immediate stage that followed the capture of the images was the initial process of image selection. During this stage the author puts on the role of photography editor by going through each and every file to distinguish the best shot from a multiple of angles and exposures. As the shots are in the hundreds, it was a tedious and time-consuming manual effort of comparing, assessing, and eliminating redundant and technically-flawed images. From approximately 6,000 images the number is now reduced to around 800. These images consist of the environment, processes, and the Pua Kumbu weavers. Prior to the selection, a classification outline was established consisting of variants and variables such as indoor, outdoor, portraits, environmental portraits, tools, weaving, tying and dyeing, dye preparations, habitat, at work, at play, daily activity, etc. This ensured a proper temporary archiving system for the final selection of images intended for display. From here, the work turns into the process of editing in Photoshop. Staying within the principle and fundamental boundaries of documentary photography, the editing is limited down to 1. Cropping and formatting (portrait or landscape). 2. Exposure optimizing through level correction (histogram-referred). 3. Sharpening Mask. All the images were saved as JPEG files with minimum compression.

Design, Layout, and Installation

The area that was designated for the display of the documentary photography was a wall with the dimensions of 9' x 24'. It was enclosed in a room of 20' x 30' with an intended capacity of 30 viewers. The space was enclosed without any windows for natural light and was lit with controlled ambience and spotlights. It was from within these dimensions that a single spatiotemporal installation of display was decided as a basis of for the execution. The single spatiotemporal display defines the viewing space combined with the time-spent on the photographic display. The visual composition was based on a grid system that takes viewer from one end to the other through a series of photographs presented in 3 different sizes. The largest of these prints represented the main elements of Pua Kumpu, with weavers and workers at work. Priority for the selection of these main images were in the order of, 1. Photographic Aesthetics (composition, exposure, lighting, and moment) 2. Narrative quality (the story), 3. Subject (human persona, tools, activity). Medium-sized and smaller prints were presented in a bigger number and their role is to complement and complete the documentary context of the exhibit in the details and extensions of the subject. 3 monitor screens are placed on the photo-wall showing slideshows of images on a time-based and looped movie file. The 3 slideshows consisted of the environment and habitat, human elements, and processes of Pua Kumbu. These slideshows were made out of 24 images each. All the images displayed were individual images with not a single repetition among them. The installation therefore presented printed stills as well as digital screened images on a single platform of viewership. As an added feature, a video mapping projection was used on the main images. The sequence of zooming out and fade was projected on them on a continuous loop from one image to another. The effect provided a feeling of immersion and enhanced immediacy with the story and subject.

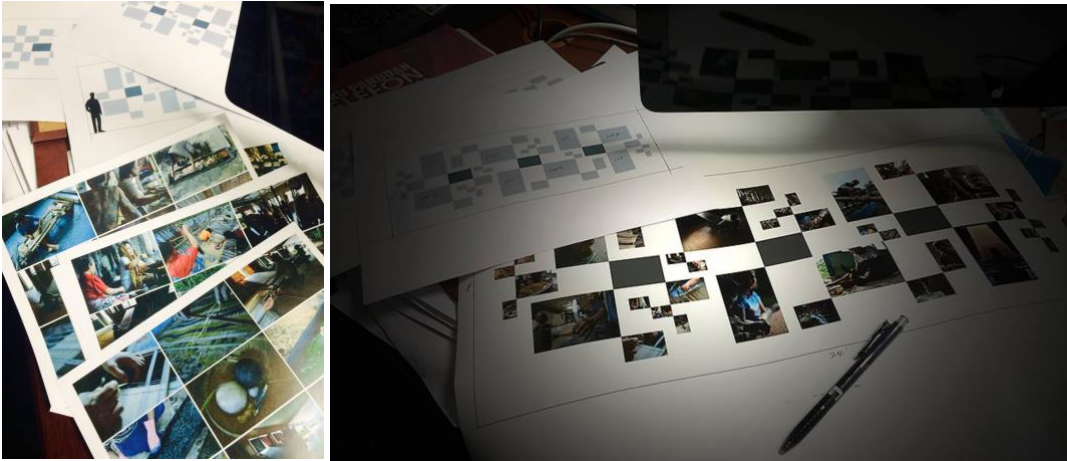
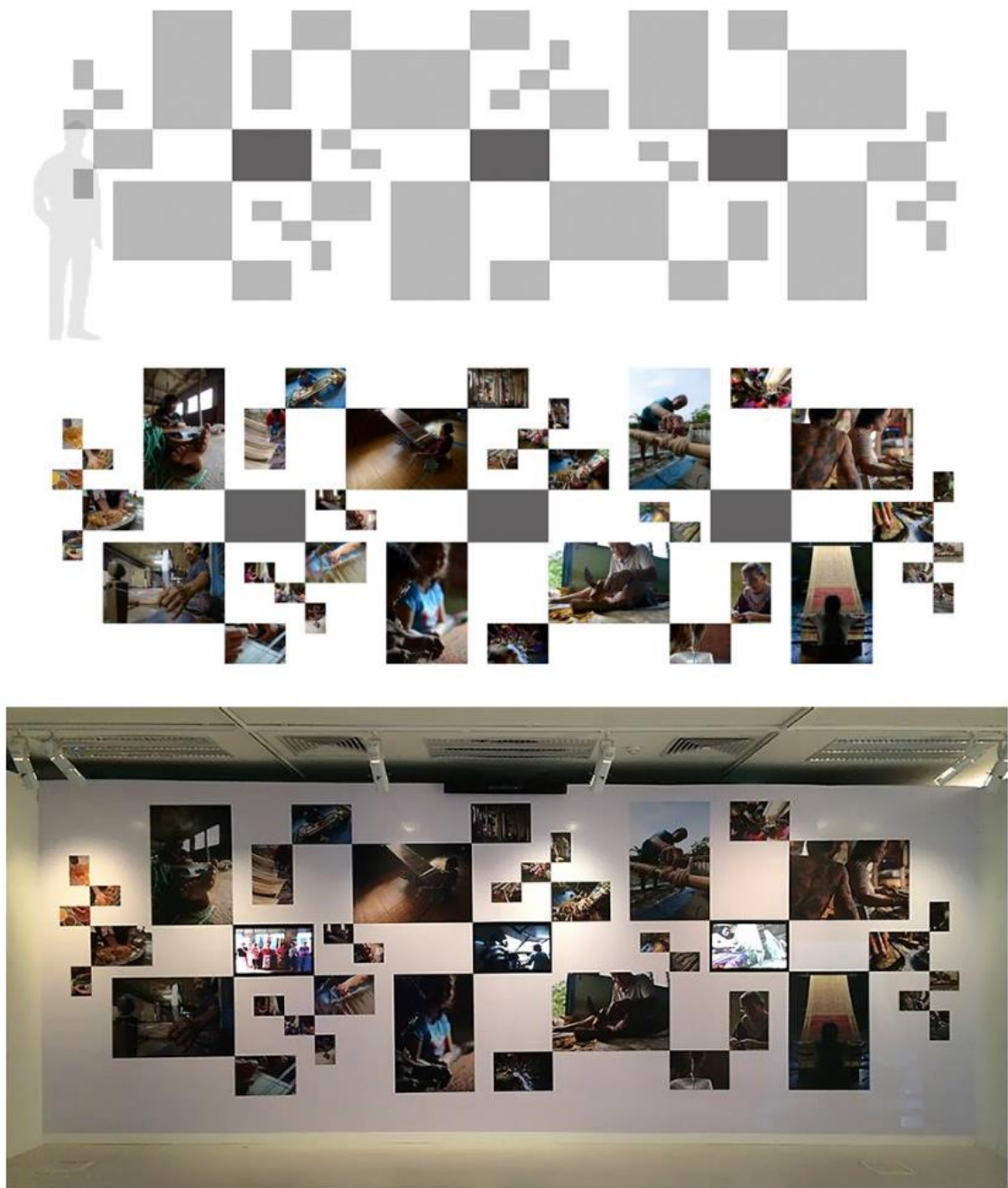


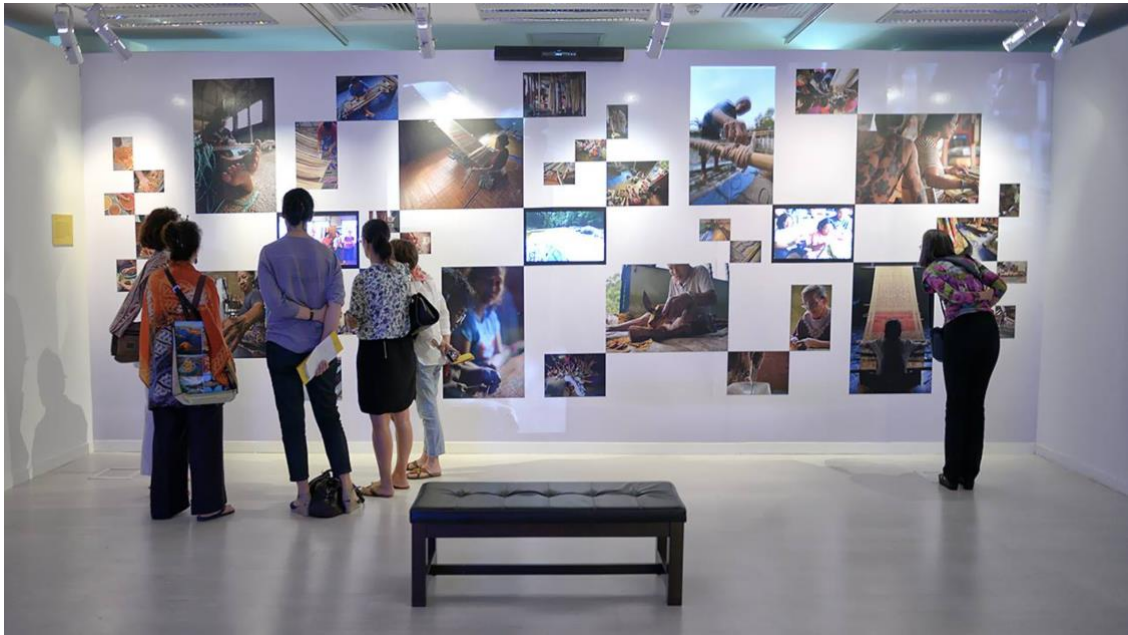
Image selection and design layout process



The installation process



The design process – from ideation to installation



Viewers of the installation

CONCLUSION

The installation was a unique design solution of presenting photographic work on a single spatiotemporal display. In one space and viewing time, viewers were presented with still images, time-based digitals, and projected transitional images consisting of almost a 100 photos. The design concept and execution of this photographic display was the solution of presenting a large number of a photographs in an exhibition with various other features. The Curatorialship called for a confined area for photographic exhibit instead of spreading still images throughout the exhibition spaces which would have been the common convention. In this manner of display, the quality and of photography was never compromised at any point but the manner and method of presentation was experimented on for better viewership experience.

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