

# **KOLB'S EXPERIENTIAL LEARNING MODEL AS A CONCEPTUAL FRAMEWORK FOR VISUAL RESEARCH IN RURAL TOURISM SITES: *BATUH NARIT ARUR BILIT* AS A CASE STUDY**

**Sarah Naemah Aman Leong\***  
*Universiti Malaysia Sarawak*

**Yakup Mohd Rafee**  
*Universiti Malaysia Sarawak*

**Doris Maying**  
*Universiti Malaysia Sarawak*

**Hishamuddin Siri**  
*Universiti Malaysia Sarawak*

**Awangko Hamdan bin Awang Arshad**  
*Universiti Malaysia Sarawak*

**Sylvester Wielding Jussem**  
*Universiti Malaysia Sarawak*

## **ABSTRACT**

This paper demonstrates the implementation of Kolb's experiential learning model (ELM), a learner-centric learning method that often used in classrooms and organizational training as a method of research on the visual aspects of rock carving named *Batu Narit Arur Bilit* in Kelabit highlands, Sarawak. This study will highlight thoroughly on the visual research process of *Batu Narit Arur Bilit* from acquiring to interpretation of data to be suited into ELM. The research of visuals in a culture is usually conducted in visual anthropology method, however this practice is often time-consuming, and visuals only serve as a tool to document and describe, but not as subject of research. The method involves a systematic, stage by stage process of recording visual images, observation, sense of touch, transferring images into digital format, and presenting the outcomes to the public. ELM do not just offer an organized method of collecting and analyzing data in a short period, but has also contributed in establishing a dialogue between researchers and the public, especially the local community and thus benefit both parties. The versatility of ELM will hopefully benefit more visual researchers in conducting research within short period as an alternative to visual anthropology method.

**Keywords:** Experiential learning; *Batu Narit Arur Bilit*; visual research; Kelabit Highlands

---

*Received: 3 January 2018*

*Accepted: 8 May 2019*

---

\* Corresponding author: Sarah Naemah Aman Leong, Faculty of Applied & Creative Arts, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia; Email: sarahleong97@hotmail.com

## 1. BACKGROUND STUDY

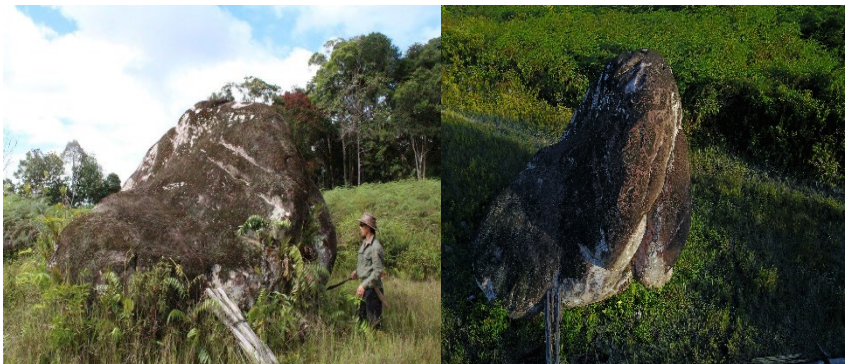
Kolb's experiential learning model (ELM) has very much assisted researchers from various field since its establishment in 1983. This is due to the experiential methodology is versatile in nature, it can be used in any discipline without having the subject connected to any specific focus (Schwartz, 2015). ELM consists of 4 stages namely concrete experience, reflective observation, abstract conceptualization, and active experimentation.

According to Chapman et al. (1995), the characteristics of experiential method in learning must have a balanced mixture of activity and theory, an environment for learner to learn without being heavily influenced by extrinsic judgement, a space for the learner to personally relate to the learning activities, encouraging dialogues between learner and surroundings, gaining new insight through self-reflection while learning, being emotionally invested to spark critical thoughts in the learner, a space to re-evaluate learner's value through self-exploration, establishing relationships with the learning environment, as well as experiencing things out of learner's comfort zone. These characteristics are important in visual research in the form of learning process, as it connects with researcher's personal experience to provide better understanding on the research subject.

The features of ELM have shown similarities in visual research method, where the experience allows much deeper analysis for the qualitative study on the visual culture (McNely, 2013). This is further supported by Spencer (2011) that stated visual materials in research help in providing better and wider insight on surroundings that may lead to new findings and knowledge. Hence, these similarities provide potential to be implemented into this research.

While most of the research on megaliths in the Kelabit highlands conducted by anthropologists and archaeologists, this research on Batuh Narit Arur Bilit was conducted by a team of visual art practitioners. The visual research requires first-hand experience in the field to rebuild personal understanding on the visual construction of the rock carving.

**Figure 1:** Batuh Narit Arur Bilit



The word '*batuh*' in *batuh narit* means stone and '*narit*' means carving in local Kelabit dialect. *Arur Bilit* is the name of the place in Pa' Umur village of Kelabit highlands where the carved stone is located. According to Jones et al. (2016) stories of behind *Batuh Narit* is usually related to myth, giving honour to an individual, to commemorate the deceased and to illustrate an event. These rock carvings can be found abundantly in the highlands, especially the carvings of human figure in spread-eagle position. Other than that, there are also carved images on the stone to depict a successful headhunting expedition, images of animals, spirit tigers, heart-shaped faces, and abstract stone carvings. In past literature, the available records on *Batuh Narit Arur Bilit* briefly describe the rock carving as self-portrait of a headhunter in spread-eagle position, as a portrayal of strength and power. There are 26 notches below its body to mark the number of heads he had severed (International Tropical Timber Organization, 2015). Interestingly, the rock carving is situated in a location that can be accessed easily by visitors, hence, making it suitable for rural tourism attraction. Previous researchers have done a tremendous job on the megaliths that focus on recording and archiving purposes, however there is still lack of research done on the visual aspect of the rock carving. Hence, this paper will solely focus on the implementation of ELM in the visual research of *Batuh Narit Arur Bilit*.

Thus, the purpose of the research mainly revolves around recording and offering discussions based on the visual aspects of the stone. Instead of using visual anthropology method which is time-consuming (Asch & Asch, 1995) and visuals only serve as a tool to document and describe, but not as subject of research (Ruby, 1989; Hockings et. al, 2014, Piault, 2015), ELM is utilized in this research as it provides a sophisticated and systematic way of acquiring and understanding visual data of the research subject.

## 2. METHODOLOGY

This paper will describe the implementation of ELM as a method of research on the visual aspect of *Batuh Narit Arur Bilit*. The four stages of ELM include: Concrete experience (fieldwork experience), reflective observation (visual analysis), abstract conceptualization (generating hypothesis), and active experimentation (demonstration of findings).

### 2.1. *Concrete experience*

In ELM, concrete experience stage involves learner's total experience including feelings and senses to be directly engaged with the learning environment (Kolb, 1984). Being in the research field to experience the situation that may have been experienced by the carver of *Batuh Narit Arur Bilit* in the past helps the researchers to observe and understand the surroundings thoroughly by being in touch with their senses, thoughts, and feelings.

The concrete experience stage of ELM in visual research started with a preliminary observation on *Batuh Narit Arur Bilit* that was done before conducting an intensive research on the carved images on the stone. Firstly, still images and video recordings of the stone in its original state are taken in various ways: close-up details such as thickness of the carved lines are captured with a DSLR camera, and Unmanned Aerial Vehicle (UAV) drone camera enables researchers to record visuals beyond eye-level to observe the stone in its natural surroundings as well as to capture images of the anthropomorphic figure in its full shape. These were done to give an overview on the condition

of the rock carving, also as a preparation for the next required action that should be taken before carrying out research on the carved images.

At prior observation, the original carvings seemed unclear to human sight due to the natural colour, height, structure, and the position of the carved images, where they can be found on top of the stone. Therefore, researchers had to climb up on top of the stone to get a clearer view of the carved images. However, from this view, the carved images were still barely visible, and one had to look closely for the incised lines and trace them with fingers to mentally 'draw' an image of the figure.

A thorough research was done on the next morning. Before tracing process began, an action camera was set in time-lapse mode to record the entire on-site research process and bearing of the stone was determined by using a compass. The area of the carved images was then cleaned by gently scraping off dust and moss on the surface of the stone with wooden sticks, this was done to increase the visibility of the incised lines. After the area were cleaned and the lines appeared to be much visible, tracing process began by placing clear plastic sheets on top of the carved images and then the lines were carefully traced by using marker pens.

**Figure 2:** Tracing process of Batu Narit Arur Bilit rock carving



The carved image on the stone was known to be an anthropomorphic figure with 26 notches extended down between its legs. However, with the help of a local guide, the research team discovered another carving later in the afternoon, when the newly-discovered carved image appeared visible due to the shadow that falls on the incised lines. The new carving is found on a slope next to the carved anthropomorphic figure and it resembles an animal. According to the initial information provided by the locals, this animal was believed to be a spirit tiger of the

anthropomorphic figure. Since no one has ever clearly seen the exact form of the carved animal in whole, the incised lines are traced back carefully using the same method as the anthropomorphic figure. Searching for the less visible carvings on the surface of the stone required the researcher to feel the carvings with fingertips and recognize them according to the consistency of thickness and continuity of the incised lines.

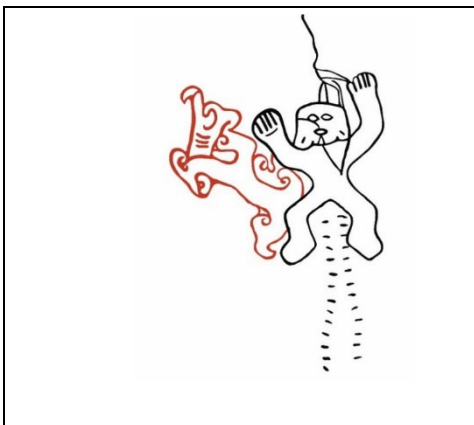
Measurements of the stone were taken for records after site research is completed. The rough lines on the clear plastic sheets obtained from direct tracing on the uneven surface of the stone are 'cleaned' by transferring the traced images onto new plastic sheets for better keeping and to make digital tracing easier.

## 2.2. *Reflective observation*

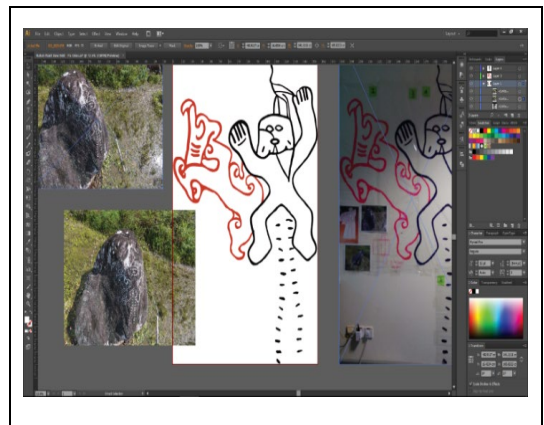
Reflective observation according to ELM refers to learner's reflection on the concrete experience through different point of view to seek the meaning behind the experience (Kolb, 1984). In this case, the researcher used digital tracing process to look back on the tracing process of Batuh Narit Arur Bilit involved in the concrete experience stage.

The image of the tracing on the clear plastic sheets are captured and converted into digital vector by tracing it back in Adobe Illustrator according to scale. The images of the anthropomorphic and animal figures are then separated with different colours. During the process of digital tracing, the traced vector images of the figures in Adobe Illustrator are constantly compared with the original photo of the carved figures on the stone to maintain the consistency of the original carved image in the digital vector image.

**Figure 3:** Batuh Narit Arur Bilit rock carvings in digital vector



**Figure 4:** Batuh Narit Arur Bilit digital tracing process



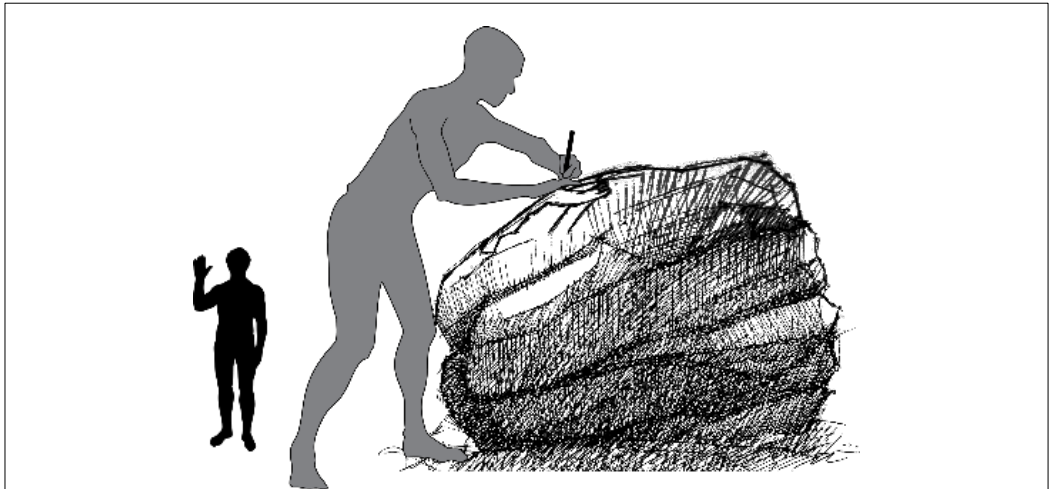
During the concrete experience stage of ELM in visual research, tracing was only done for the purpose of recording due to the size of the rock carving. However, in reflective observation, researcher was able to manipulate the traced image into a smaller scale, and separate them into two different figures through digital tracing. Hence it helps the researcher to closely observe and reflect every visual aspect of the carved image such as the swirls on the newly discovered carving, and how the two figures joined together at the 3 points: right elbow and knee of the of the anthropomorphic figure and the tail of the animal figure. The reflection on the visual in this stage will be further analyzed in the next stage of the research, abstract conceptualization.

### 2.3. *Abstract Conceptualization*

ELM's abstract conceptualization is the outcome of reflective observation, in which involved learner's own critical thinking over the learning subject (Kolb, 1984). In this research, abstract conceptualization is a follow up of the previous stage, where every visual aspect of Batuh Narit Arur Bilit is reflected upon to seek rational explanations behind the creation of the carved image.

According to observation and experience, the height of the stone makes it impossible for a human with normal physique to simply make such huge carving with clean lines without leaving messy carving marks. Researchers' hypothesis suggested the carver was physically tall and strong, where it can make the carving easily by leaning against the stone like a table.

**Figure 5:** Researchers' hypothesis on the physical size of the carver based on local folklore



The two characters are identified and analyzed based on past literatures and oral stories from the locals. There are similar images in visual of anthropomorphic figure located at the southern part of Kelabit Highlands, such as Batuh Narit Pa' Repuduh / Pa' Mada in Pa' Mada, Batuh Narit Long Derung in Pa' Main, Binatuh Long Badung in Ramudu (Hitchner, 2009) as well as Batuh Narit Toked Rini in Long Tenarit, Pa' Ramudu that was associated with an ancient local hero called

Tuked Rini (Hitchner, 2009). However, there were no firm evidence saying that Batuh Narit Arur Bilit is carved by Tuked Rini, instead it was only suggested that to be able to produce large-sized carved images on top of a big stone, the carver must have very tall physique, thus suit the impression of local heroes such as Tuked Rini himself, along with Agan Tadun and Balang Lipang (Panel text, *Megalith cultures through time and space exhibition*, Teripun/Kelabit Community Museum, Bario, Sarawak).

The highly stylized image of the animal next to the anthropomorphic figure was believed to be its spirit tiger according to the locals, however it also resembles an 'aso' – a dog figure that is a common design of the native *Orang Ulu* (Haddon, 1905). The notches were believed to be the number of heads severed by the carver (J, Pasan, personal interview, April 2, 2017).

**Figure 6:** (a) Image of the spirit tiger carving; (b) beadwork design on sheath of a Kayan-Kenyah 'parang' (machete).



#### 2.4. Active experimentation

Active experimentation involves testing the learning outcome by practicing it (Kolb, 1984). In this stage, researchers demonstrate the research process and findings on Batuh Narit Arur Bilit by setting up an exhibition at the local community museum where the locals and public can learn and directly share their thoughts with the researchers.

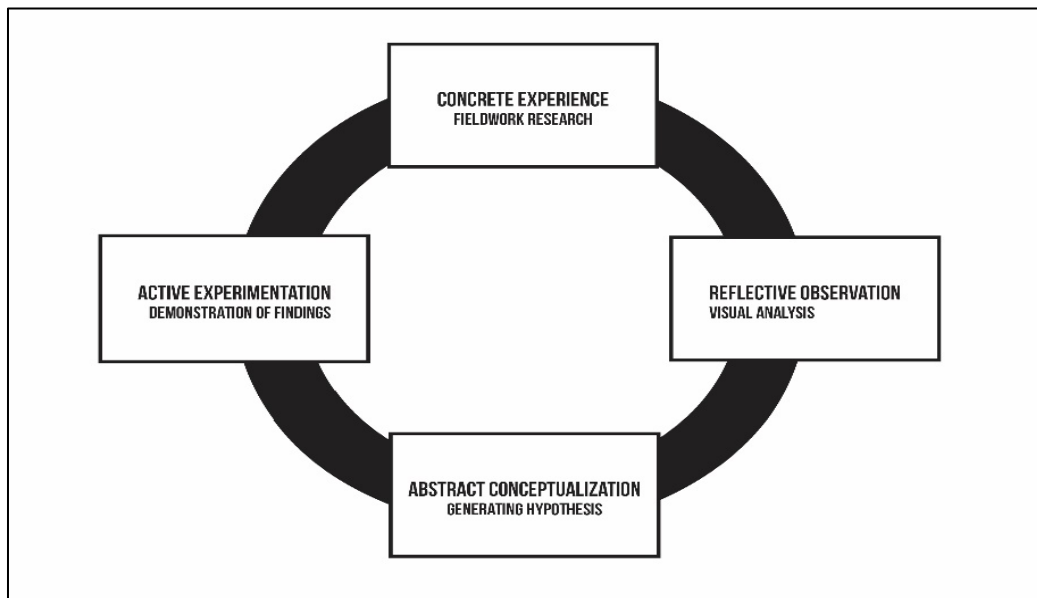
The traced images were first presented to the public on an exhibition entitled *Megalith Cultures of The Kelabit Highlands Through Time and Space* in conjunction with 12<sup>th</sup> Nukenen Festival, at the Teripun/Kelabit Community Museum of the 27<sup>th</sup> -29<sup>th</sup> July 2017. This exhibition is held as a mean of sharing the research findings on the Batuh Narit Arur Bilit to the local community as well as to test the hypothesis on the carved figure by getting feedbacks from the local community and visitors. The exhibition has established a dialogue between researchers and public whereas it allows the researcher to reveal what is unseen beyond the hypothesis through the eyes of the public.

One of the visitors argued on the hypothesis on the unusual height of the carver. Instead, it was suggested that the ground level was much higher during the time when the carvings were made, hence it was a lot easier for a person with normal physique to create such carvings on the stone. In

other hand, some also suggested that before the surrounding land was cleared for paddy plantation, there used to be trees nearby for the carver to climb up and make carvings the stone.

### 3. RESULTS

**Figure 7: Experiential Learning Model in Visual Research**



Concrete experience stage involves practice, whereby researchers must engage in fieldwork research to completely understand the process of data collection and the condition of the subject matter. Fieldwork research allows researchers to attain experience-based knowledge that can only be found by being present on field. The experience-based knowledge is crucial as they provide intangible data such as thought processes during observation and feelings involved while conducting fieldwork research to be reflected upon the next stage of this ELM in the visual research.

The physical data such as digital images and traced image of the rock carving obtained from the fieldwork research are later analyzed during the reflective observation stage of ELM in visual research. This stage enables researchers to look closely on the subject matter, given the brief time spent on the field largely focuses on collecting data but less on analyzing. In this stage, researchers would have ample time to analyze the visuals collected and reflecting the experience obtained from fieldwork research, in order to understand the subject matter better.

After the visuals were analyzed, the data were made sense by relating them to other information. By seeking connection between the information on the subject matter and other knowledge will generate hypothesis. However, despite the all evidences that support the proposition, to strengthen the hypothesis requires discussions where it can be established through active experimentation.



The processes involved in the 3 stages of ELM in visual research are presented in active experimentation. In this stage, apart of presenting research process and findings, it also serves as a testing ground for the new hypothesis generated through abstract conceptualization stage of ELM in visual research. Active experimentation stage of ELM in visual research encourages dialogues between researchers and public on the subject matter, also helps in seeking additional information through the locals regarding the subject matter.

#### 4. DISCUSSIONS

In previous literature, Batuh Narit Arur Bilit was only described as a carving of human figure in spread-eagle position, with a total of 26 notches extended down between its legs. However, there were no mentions on the dog figure next to the anthropomorphic figure. Furthermore, in most literature on *Batuh Narit Arur Bilit*, the visual images of the stone were only captured from average eye level. From the research experience, it is not enough to merely observe the almost non-visible carvings from a distance; instead it requires an intense observation of the carved images on the stone from a close distance to get an overall view of the image.

In the ELM's concrete experience stage, researchers were able to determine lines by engaging sense of touch to search and define lines that are less visible to human sight. The carving of dog figure was previously left unnoticed, since it was carved on a slope next to the anthropomorphic figure. It only appears slightly visible in the afternoon due to the shadow that falls on it. Therefore, researchers had to search for the incised lines by feeling them by using fingertips to obtain the overall image of the dog figure. This process has provided a great help in rediscovering and visualizing the lost carving of the dog figure. The fieldwork research that served as concrete experience in the overall research on Batuh Narit Arur Bilit has also enabled researchers to get more visual coverage on the carved images in comparison to the usual single-angled photographs.

Due to the original condition of the stone, it was hard for the researchers to look for the continuity of carved lines. Reflective observation stage took the researchers prior knowledge on elements of art (line, color, shape, form, value, space, texture) and principles of design (balance, proximity, alignment, repetition, contrast, and space) into consideration, to produce a clean visual with neater lines of the rock carving in digital. For instance, researchers were able to determine the lines that carved intentionally and rule out natural lines that formed on the stone by comparing the consistency in thickness and direction of the lines.

Through the abstract conceptualization stage, researchers' knowledge in visual art has also contributed in finding similarities of designs based on the swirls of the dog figure and the image of elongated earlobes on the anthropomorphic figure.

While ELM may seem to be learner-centric in other fields, this research has successfully engaged the locals with knowledge sharing through active experimentation stage. Sharing information with the locals do not just give awareness on their own culture, but at the same time creating dialogues between researchers and the community, thus helps in discovering more information on the visuals through the elder generations of the Kelabit community by recalling their folklores. The rural tourism of Bario receives an increasing number of visitors each year (Harris, 2009); therefore the

symbiosis between local community and museum is crucial, whereby museum provides information and the involvement of the locals in knowledge sharing ensures the sustainability of the community museum (Crooke, 2008).

## 5. CONCLUSION

As a conclusion, this research itself has introduced a new way of utilizing ELM, a learning method that is prevalently used in classroom education as a conceptual framework for visual research. It has greatly assisted in the study of visual aspects of Batuh Narit Arur Bilit. It enables us to see examine the visuals thoroughly within a reasonable period. This is due to systematic nature of ELM in organizing research in stages, and those stages possess the similarity of process involved in visual research. Furthermore, ELM in visual research helps us to have better understanding on the subject matter by experiencing in fieldwork research, reflecting upon the experience while doing visual analysis on the subject matter, conceptualize the information on the subject matter by relating it to other knowledge, and experimenting through demonstrating the findings in public.

The documentation of these traced images through various medium is important as an effort to preserve the local heritage and at the same time promoting local tourism. Based on the implementation of ELM into this visual research, an offline map mobile application named 'Pasan Navigator: The Kelabit Highlands Map Project' that highlights selected megaliths on the Kelabit Highlands was developed with the aim to assist tourists in navigating to where the rock carvings are located and also providing brief information regarding the rock carvings. This research has proven to be beneficial in the effort to promote the highlands' rural tourism as the innovation has won Gold Award at the 2<sup>nd</sup> Asia International Conference of Art and Design 2018 (AiCAD'18).

Thus, by the versatility of ELM, hopefully it will benefit more visual researchers in conducting intensive research within a reasonable period as an alternative to visual anthropology method as well as offering a conceptual framework for visual research in rural tourism sites. As experience plays the most essential role in any form of tourism especially in the rural areas (Louriero, 2014), the use of ELM as a conceptual framework in conducting visual research on rural attraction sites will indeed help in highlighting the visual researcher's genuine experience and knowledge on the local culture at the end of the research as a testimonial that may also serve as marketing materials to the rural tourism.

## ACKNOWLEDGEMENT

This research is supported by Ministry of Higher Education (MoHE) under Fundamental Research Grant Scheme (F03/FRGS/1500/2016). We would also like to express our utmost gratitude to Universiti Malaysia Sarawak, Rurum Kelabit Sarawak, and the community of Bario for the constant support and assistance in data collection.

## REFERENCES

- Asch, T., & Asch, P. (1995). Film in Ethnographic Research. In P. Hockings (Ed.), *Principles of Visual Anthropology*, (pp. 335-360). Berlin: Walter de Gruyter & Company.
- Chapman, S., McPhee, P., & Proudman, B. (1995). What is Experiential Education?. In K. Warren (Ed.), *The Theory of Experiential Education*, (pp. 235-248). Dubuque: Kendall / Hunt Publishing Company.
- Crooke, E. (2008). *Museums and Community: Ideas, Issues and Challenges*. New York: Routledge.
- Haddon, E. (1905). The dog-motive in Bornean art. *The Journal of the Anthropological Institute of Great Britain and Ireland*, 35(1905), 113-125.
- Harris, R. W. (2009). Tourism in Bario, Sarawak, Malaysia: A case study of pro-poor community-based tourism integrated into community development. *Asia Pacific Journal of Tourism Research*, 14(2), 125-135.
- Hitchner, S. (2009). The living Kelabit landscape: Cultural sites and landscape modifications in the Kelabit Highlands of Sarawak, Malaysia. *The Sarawak Museum Journal*, 46(87), 1-76.
- Hockings, P., Tomaselli, K. G., Ruby, J., MacDougall, D., Williams, D., Piette, A., & Carta, S. (2014). Where is the theory in visual Anthropology? *Visual Anthropology*, 27(5), 436-456.
- International Tropical Timber Organization. (2015). *Stone Culture of the Northern Highlands of Sarawak, Malaysia: A Visitor's Guide*. Sarawak, Malaysia: Sarawak Forest Department, Sarawak Forestry Corporation.
- Kolb, D. A. (1984). *Experiential Learning: Experience as The Source of Learning and Development*. New Jersey: Prentice-Hall Inc.
- Loureiro, S. M. C. (2014). The role of the rural tourism experience economy in place attachment and behavioral intentions. *International Journal of Hospitality Management*, 40, 1-9.
- McNely, B. J. (2013). Visual Research Methods and Communication Design. *Proceedings of the 31<sup>st</sup> ACM International Conference on Design of Communication SIGDOC'13* (pp. 123–132). <https://doi.org/10.1145/2507065.2507073>
- Piault, M. H., Silverstein, S. M., & Graham, A. P. (2015). Where indeed is the theory in visual anthropology? *Visual Anthropology*, 28(2), 170–180. <https://doi.org/10.1080/08949468.2015.997091>
- Ruby, Jay. (1989). The Teaching of Visual Anthropology. In Chiozzi, P. (Ed.), *Teaching Visual Anthropology*, (pp. 9–18). Florence: Il Sedicesimo.
- Jones, S.E., Barton, H., Hunt, C.O., Janowski, M., Lloyd-Smith, L., & Barker, G. (2016). The cultural antiquity of rainforests: Human–plant associations during the mid-late holocene in the interior highlands of Sarawak, Malaysian Borneo. *Quaternary International*, 416(2016), 80-94. <https://dx.doi.org/10.1016/j.quaint.2015.11.024>.
- Spencer, S. (2011). *Visual Research Methods in The Social Sciences: Awakening Visions*. London: Routledge.
- Schwartz, M. (2015). Best Practices in Experiential Learning. *The Learning and Teaching Office*, (pp. 1-20). Toronto: Ryerson University. Retrieved from: <https://www.ryerson.ca/content/dam/learning-teaching/teaching-resources/teach-a-course/experiential-learning.pdf>