





https://www.amerabra.org: https://fspu.uitm.edu.mv/cebs: https://www.emasemasresources.com 4th International Conference on Science & Social Research The Pines, Malacca, Malaysia, 06 -07 December 2017



An Analysis of Artistic Diversity in Hybrid Art Practice among Malaysian Artists

Valerie Anak Michael¹, Khairul Aidil Azlin Abd Rahman², Shureen Faris Abdul Shukor³, Noor Azizi Mohd Ali³

¹Faculty of Art & Design, Universiti Teknologi MARA, Kota Samarahan, Sarawak, Malaysia ²Department of Industrial Design, Faculty of Design and Architecture, Universiti Putra Malaysia, Serdang, Selangor Malaysia. ³Department of Landscape Architecture, Faculty of Design and Architecture, Universiti Putra Malaysia, Serdang, Selangor Malaysia

> valerie19mic@yahoo.com.my, drkhairulazlin@upm.edu.my, shureen@upm.edu.my, nooraz@upm.edu.my Tel of 1st Author: (+60) 135780979

Abstract

This research objective is to analyze the artistic diversity in hybrid art practice among selected Malaysian artists. The paper examines the process of making hybrid artworks where focusing on media diversity and experiment activity. The researchers had used cluster sampling and twenty artists involved to answer the questionnaires. The researchers used bar graph and Principal Component Analysis to analyze the artistic diversity in Hybrid Art. The finding of media diversity shows that Malaysian artists are focusing on mixed media, strength and equipment. Besides, the artists are focusing on subject matter, experiment, influence and research for the finding of experiment activity.

Keywords: Collaboration, experiment activity, media diversity, hybrid approach

eISSN: 2398-4287 © 2020. The Authors. Published for AMER ABRA cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BYNC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), ABRA (Association of Behavioural Researchers on Asians) and cE-Bs (Centre for Environment-Behaviour Studies), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia. DOI: https://doi.org/10.21834/ebpj.v5iSI1.2307

1.0 Introduction

The new technological advancement has encouraged artists to apply multidisciplinary by combining the old and new media in art production. This scenario was first started in 1988 when Ismail Zain's artworks brought a new dimension of creating artwork. He created a conceptual structure of electronics assimilation and at the same time, continued an analytical complexion (Saidon & Rajah, 1997). At this time, he began exploring the computer as a media for him to produce an artwork. Artists had created various ways to analyzed art and research; they studied the materials, exploring techniques, process, different tools and the potential of involvement in multidisciplinary.

2.0 Literature Review

The motivation of the research is to analyze the artistic diversity in Hybrid Art practice among selected Malaysian artists. The reason is the last hybrid art exhibition was held in 2007 at Sabah Art Gallery. Since then, there is no new edition of the hybrid art exhibition. The Hybrid Art Group members are artists and researchers from the Faculty of Applied and Creative Art from Universiti Malaysia Sarawak. Their artworks are from various disciplines such as fashion, graphic, cinema and fine art. This art group focuses on multidisciplinary approaches. They had organized two exhibitions, namely, 'D'NA \rightarrow HYBRID from the Inside' which was held at National Visual Art Gallery (NVAG) in 2005, and 'Hybrid + ISM' that was held at Sabah Art Gallery in 2007. From this scenario, researchers were inspired to conduct research about the artistic diversity, which means that the mixture of creative, expressive and aesthetic in hybrid art. Besides, the number of a hybrid type of art exhibition is quite low compared to two-dimensional art show. Moreover, if there is art agency organize art competition, there would be a special category for this type of artwork, for example, "variable dimension" in art competition like 'Young

eISSN: 2398-4287 © 2020. The Authors. Published for AMER ABRA cE-Bs by e-International Publishing House, Ltd., UK. This is an open access article under the CC BYNC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/). Peer-review under responsibility of AMER (Association of Malaysian Environment-Behaviour Researchers), ABRA (Association of Behavioural Researchers on Asians) and cE-Bs (Centre for Environment-Behaviour Studies), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.

DOI: https://doi.org/10.21834/ebpj.v5iSI1.2307

Contemporaries 2016' organized by NVAG. This issue has inspired researchers to study the artistic diversity among Malaysian artists aside from the Hybrid Art Group members.

Based on Hybridism Concept of Manifesto (Fig. 1), the concept of creating hybrid artworks focus experimentation, multidiscipline, creativity, combining, merging the media and technology and embracing culture (Rahman, 2007).

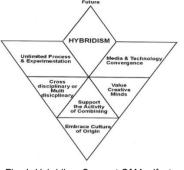


Fig. 1: Hybridism Concept Of Manifesto (Source: Hybridism + ism, 2007)

In this contemporary era, the artists committed to challenging themselves to produce new knowledge and probabilities in creating artworks. Janke and Solicitor (2002) stated that new media art is also known as cross-disciplinary or hybrid art. This practice is a collaboration of art form, culture and different field of methods which include the mixed form of art such as sculpture, sound and visual technologies, hybrid performance, digital manipulation, computer art and film or video. Therefore, art is not about standing on one discipline alone, but it is about integration that brings content and meaning.

Moreover, hybrid practice is also encouraged by the advancement and growth of the media and so to the techniques. The combination of the hybrid form includes different application of techniques, they also challenging the conventional style or combined with new technologies to create a unique outcome. Yetisen et al. (2016) explained that in the development of the multidisciplinary study. the appearance of digital approach and the participation in art and science are expanding to inform the community about innovative tools and constructing the new artistic viewpoints. Piirma (2014) stated that combining the artworks raises the new topic, relationships and more unspecified possibilities, especially in artistic disciplines. In this case, the advancement of technology influences the growth of an artist's creativity in manipulating new technique to produce artwork. Combination of disciplines acquires high expectation, especially when the artist portrays their intelligence in shaping science and technology. It is necessary to help build capability among artists to portray their creativity and idea as well. In the 1990s, according to Antoinette (2005), Malaysian art was enormously conscious of the common practice, involving evolutions in the art and obviously in contemporary media especially in the advancement of technology and World Wide Web or even digital show. In today's art practice, the artists can simply refer to any art tutorials, discussion as well as articles and can also directly communicate with the experts. According to Dawa (2008), we do not avoid the effect of technology that enter our culture. Since the 1980s, the convergence has delivered the impact of various styles of art and distributed the understanding from western, Islamic and eastern states. The pioneer of digital art in the 1980s, Kamarudzaman Isa had produced an artwork entitled "Penghargaan Untuk Bapak", then Ismail Zain in his artwork "AI Kesah" portrayed popular culture represented by the popular soap opera "Ewing family". Furthermore, in 1994, Hasnol Jamal Saidon's artwork "Kdek, Kdek, Ong!" which was an installation and presented the cultural aspect of Malay proverb. He applied electronic media such as television and videotape player (Piyadasa, 2001).

The digital usage brought art to another level, and this knowledge then leads the production of new information, research and artworks. Also, Doyle (2014) described a unique collaboration between new applications and task with theorists to study the modern virtual world offers to artistic practice. It enables new applications to continue expanding and testing various art fields. Artists are also anxious to study the technology and the complexity of the electronic tool, which then help them determine fresh and contemplative ideas for the needs of their artworks. This cooperation can engage with an analytical analysis of art production, an observation of science and art research (Sunarto, 2015). As mentioned before, the understanding of the term 'collaboration' has indeed expanded the language of art. In term of understanding of the media, Selen (2015) stated that the process of installing new media artworks have meaning and understanding, the artist was about expressing their opinion, reaction and monitoring to the material. Besides, the combination of art, science and engineering also lead to the process of making hybrid artworks. Balint and Pangaro (2017) stated that the intersection of art, science and engineering were able to assign knowledge among the disciplines. Therefore, the languages between disciplines could widen the technique or process. These scholars have emphasized the elements of science and art which were specifically interdisciplinary practices, presented the new knowledge and significant of the interdisciplinary and combination method in a way of producing artworks. Therefore, art appreciation will be celebrated by the art community in an impactful way.

3.0 Methodology

To analyze the factors that lead to artistic diversity, the researchers executed two artistic diversities, namely media diversity and experiment activity. For this purpose, there were twenty selected artists had answered the questionnaires. Researchers had used cluster sampling for the artist's selection. The purpose is to identify who are the artists are suitable to answer the questions (Neuman, 2003). Besides, researchers also need to identify the attributes to portray the artistic diversity in hybrid art practices. The reason is to construct 100

the questionnaires of artistic diversity. So, the researchers applied the Kawakita Jiro method and known as the KJ method. KJ method is involved in technological transformation, and the process involves arranging and brainstorming (Munemori & Nagasawa, 1991). The researchers brainstormed the attributes related to hybrid practices with the aid of journal extracts, catalogues and articles. The researchers had used closed-ended questions, and face to face with the selected Malaysian artists. Before the survey was conducted, the researchers had identified the artists' background in art fields and their experience in making hybrid types of artworks. The researchers had met the artists and the artists answered the questions in front of the researches. Likert Scale also applied for this survey research. The Likert Scale is a five-point scale which are strongly not agreed, not agree, neutral, agree and strongly agree (Neuman, 2003).

3.1 Attributes

Based on Table 1, for "media diversity", there were six attributes tested including the 'character of media' which focuses on the artist examining the essence of the material preceding art-making. Additionally, 'mixed media' is another crucial factor in media combination process, so does the 'strength' of the material. 'Strength' in this context measures the ability of the media before and after the production process. 'Equipment' is representing the tools or machine that involves in making artworks. On the other hand, 'combination' attribute represents the mixture of media while 'traditional methods' refers to the artist applying the basic method in producing artwork.

Similarly, for "experiment activity", there were also six attributes consisting of 'research' which refers to the study of the subject and media in experimentation, 'experiment' as the media to be used by the artist, 'influence' as the artist's acceptance of their reference in creating artwork process, 'subject matter' represents the artist's idea preceding their artwork, 'integration' portrays the used of old and new media at the same time 'collaborate' is about involving experts from other fields.

Table 1. The attributes of media	a diversity and experiment activity
----------------------------------	-------------------------------------

Media Diversity	Experiment Activity
Character of media	Research
Mixed media	Experiment
Strength	Subject Matter
Equipment	Influence
Combination	Integration
Traditional Methods	Collaborate

4.0 Results and Discussions

In this section, there are two results: the analysis of media diversity in hybrid art practice applied by the artist and the study of experiment activity in hybrid art practice used by the artist.

4.1 The analysis of media diversity in hybrid art practice applied by the artist

As shown in Fig. 2, the highest reading reflects 'mixed media', 'equipment' and 'combination', which are the primary system in generating the process of artwork making. The highest mean's score is four and above. At this point, the artist merges suitable material and intention to figure out new ways to generate knowledge of different kinds of 'mixed media' and transform them into artistic diversity. The artists made use of media and tool testing as an approach followed by an examination of the 'equipment' that can support the material. Today, artists are capable of studying the equipment to be used in the process of producing artworks. They also experience the advantage of using different equipment, especially when it can help the artist examine the best way to represent the idea.

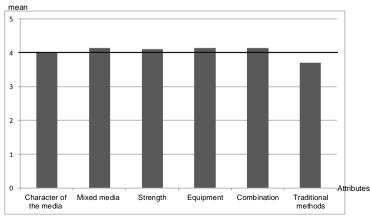
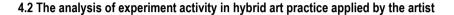


Fig. 2: An analysis of media diversity in hybrid art practice applied by the artist.

Additionally, since art acknowledges the exploration of fascinating ideas, this drives to possibilities in artworks. It may seem unpractical where the artist unaware of the media renewal, especially in the research of mixed diversity of media. Artists must regularly figure out the media that they want to use whether it is a 'combination' of the old and new one, or high and low technology. When it comes to utilizing equipment, the various equipment various from engineering, industrials, laboratory, software and hardware from other fields. Artists may combine the different genre of equipment based on their idea, and this helps motivate them to show openness to engage. After all, through the process, they able to understand the 'character of media' that suit their artworks. It is what experimentation offers to the artists, and this automatically leads to the creative process during artwork making. All of the artists were not into 'traditional method' because they were used to the new alternative in the process of making artwork.

In this case, the artists were able to do more research on the media, high technology, traditional media or a mixture of both. It would lead to enthusiasm among them to conduct their research in combining different media and tools to discover possibilities in the construction of art-making. The development of media exploration has been way easier since network advancement responses well to media transition.



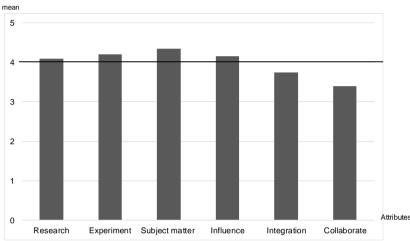


Fig. 3: An analysis of experiment activity in hybrid art practice applied by the artist.

As shown in Fig. 3, the "Experiment Activity" has four attributes scoring more than mean 4 namely 'research', 'experiment', 'subject matter' and 'influence'. The highest score is 'subject matter', and it shows that the artists concerned on the idea represented in the artwork. Then, the practices were followed by 'experiment' that support the subject matter in terms of artwork production. The 'experiment' activity involved media and tools where the artists would channel from one idea to another, as well as one media to another and so do the tools. One of the challenge is the experiment process, the artists transform their creativity and practice in the testing process. During the experiment process, 'influence' often transform the artists in their production of hybrid works. The term 'influence' here represents how the products or styles of other artists that they referred to affect their own creation, presentation, possibilities and even the significance of their research and artwork.

When these artists had their references that boost their interest, this leads them to conduct a 'research' about the subject. When it comes to doing research, it is not about studying the subject matter per se, but the artists also analyzed both the background of the subject and media. This lead to awareness as well as an understanding of the whole artworks. On the other hand, the outcome would later encourage questions about the hybrid practices among artists. Artwork production is, indeed an exploring and learning stage. The relevance of exploration is to provide an opportunity for the artists to assess the diversity of media.

Nevertheless, based on the graph shown in Figure 2, the artists are not into 'collaboration' with other experts or fields in their practice. It is proving that our local art gallery is against artworks that involve exploration, analytical and analogue mode to be exhibited in the gallery (Yap, 2013). When it comes to collaboration, it is more on an art project with other agencies. For example, Kamal Sabran in his artwork named "Sound from Outer – Inner Space", he collaborated with the National Space Agency to achieve noise radiation and frequency from Jupiter. The idea shows that the equipment to capture the noise is definitely from the space agency, and the expert navigated the computer to handle the machine. Thus, the information was transferred to the artist and then developed into an artwork. At this point, the collaboration involved hybrid in the knowledge of astrophysics and sound art (Sabran, 2010).

4.3 The artistic diversity in hybrid art practices data using Principal Component Analysis

In Fig. 4, twelve attributes extracted from the categories of media diversity and experiment activity. Researcher applied Principal Component Analysis (PCA) surveys to extract the categories of media diversity and experiment activity. PCA is a statistic graph by portraying survey and to separate the crucial statistic outside of statistic graph then convey this results into different component named principal component (Abdi and William, 2010). Based on Fig. 4, the y-axis is representing the high (positive) and low (negative) practices.

The x-axis is representing hybrid practice and foundation. It shows that the highest score opted by the artists are 'subject matter', 'experiment' and 'research' (y-axis). Also, the importance of conducting research and experiment to different kinds of media able to expand the artist's knowledge about the media. These artists claimed that the three attributes are very crucial from the beginning until the final artworks were completed. This x-axis shows that most of the attributes are spot at 'hybrid' side. The artists believed in those attributes such as 'mixed media', 'strength' and 'combination' to achieve hybrid practices. Meanwhile, attributes such as integration and collaboration are in the middle of the plot. It shows what should happen in the art scenario today.

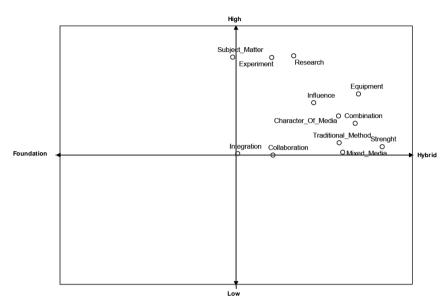


Fig. 4: A plot of the artistic diversity in Hybrid Art Practices data using Principal Component Analysis

From the Fig. 4, it shows that Malaysian artists are practicing a hybrid approach in making their artwork. When they are making artworks, the artists understand the material, doing research to the subject, exploration toward the equipment and mixed different kind media. The technology and art encouraged the artists to explore beyond their inventiveness (Yuan and Ben, 2008). The acceptance of other fields may give a starting point to other experts to welcome and collaborate with these artists vice versa. As this is a collaboration, there is no concept of ruling the art project. The appreciation of aesthetic understanding is to emerge the mixture of theoretical and practical sides so that it can influence and improve the hypothesis. Similarly, a combination of knowledge contributes significant impact on aesthetic in science nowadays (Busch, 2009). It is about the outcome of the collaboration between science and art. Then the knowledge will be meaningful when shared with audiences. Aside from mastering the theory, the artist shows that he can apply it in art.

For example, looking at the 2017 edition of "Young Contemporaries" competition which was organized by the National Visual Art Gallery, the organizer offered a diversity of categories in the competition. The "Variable Dimension" category displayed a variety of artworks involving interaction, sensor and installation. Artists such as Haris Abadi, Mohammad Colman, Mohammad Fadly Sabran and Liu Cheng Hua conducted media experimentation that included participation with audiences.



Fig. 5: Golden Shaft by Liu Cheng Hua. March 2017. (Own photo)

For example, Liu Cheng Hua's artwork named "Golden Shaft" is a combination of historical and art in which the artist portrays the history of Raub. It was a place of shaft mining during the colonial era. The idea applied was a combination of sculpture, sound device and projection whereby the media involved were bamboo, gold leaf, metal, wood and acrylic paint. These ideas aimed at representing the industrial history of gold mining. Through this artwork, the artist shows the historical, combination of the new and old media, projection and audience's participation. Here, we can see that the hybridity involved are interaction, history, cross-discipline and mixed media. Apart from that, projection and sound are included in the presentation to reflect the environment and reflection of the mining process. Another example is Muhammad Colman in his work "Not Our Fight". It was an interactive work involving audience participation. The idea was about making an interactive comic where the audience was able to control movement by moving their fingers on the TV screen; the audience was able to experience the animation in 3D and control the depth of every animation scene. At this point, the hybrid process

becomes responsive to the action of exploration. It also creates numerous conceptions which include the presentation and disciplines. Computer application acknowledges an experiment and manipulates the ideas, so this would contribute to many outcomes and information. The result of the final artwork includes discipline and using computer technology method, and this result may produce hybrid complex (Platzer, 2012).

In this case, it implies that artists should conduct collaboration and generate exciting research with other practitioners. Therefore, support for hybrid artworks is needed because there is a potential to develop hybrid art practices in the Malaysian art scene. When discussing collaboration in the hybrid approach, there was an art-science exhibition called "NYAWA" organised by the Faculty of Design and Architecture that encouraged art practitioners from science and engineering fields to participate in this exhibition. "Brain" was the subject matter, and art practitioners applied and transformed it into art languages. Most of the artworks were team basis. One of the artworks by Norhafizah Mohtarrudin, Fauziah Kassim and Fatimah Ahmad Sharifuddin entitled "Nasty Beauty" was about the brain tumour, a disease that can affect human. The cells presented various forms and shapes that created extraordinary colours and design (Mohtarrudin, Kassim, & Sharifuddin, 2016). When the audiences viewed these on the wall, the images were surprisingly similar to abstract painting. On the other hand, audiences were also able to experience the show in a different context. Usually, they viewed 2D and 3D kind of artworks, but in this exhibition, there was an interaction, using senses and gaining new information. So, the process of creating art is about demonstrating an interpretation of aesthetic passion. The routine involves applied and inherent understanding. It affects the development of our local art scene. Collaboration is practically not about imitating the western art style, but adopting the technology advancement and shaping the art orientation based on our own identity.

5.0 Conclusion

The impact of technology allows artists to explore art more. It is also easy for them to access and receive new information about the art world. This scenario leads to the creation of various art styles and this implication is the result of a capable drive for current technology and communication networks (Mahmood, 2008). The evolution of art practice creates hybridity in art by including different genre and discipline in presenting artwork. Even though our artists do not fully practise collaboration and integration orientation at this moment, but there are related actions taken by some artists. Same goes to art practitioners. Experts urged to explore possibilities in art development, to study their task well and deliver the multidisciplinary ways by participating in a subjective approach to lead intelligence and artistry (Eaves, 2014). At the same time, the power of the Internet has brought a wide array of information: the advancement of media and tools, new experiment and findings. The openness of the artists to the transition of media has given a new meaning in experiencing the hybrid works.

Acknowledgments

The authors acknowledge and appreciate the support of the Ministry of Higher Education Malaysia in providing MyBrain15 scholarship (MyPhD). The authors would also like to thank the artists involved in this research.

References

Abdi, H., & Williams, L. J. (2010). Principal component analysis. Wiley interdisciplinary reviews: computational statistics, 2(4), 433-459. Retrieved from https://onlinelibrary.wiley.com/doi/epdf/10.1002 /wics.101

Antoinette, M. (2005). Different Visions: Contemporary Malaysian Art and Exhibition in the 1990s and Beyond. Khairuddin, N. H. Yong, B. Sabapathy, T. K. (Eds.). Reactions-New Critical Strategies Narratives in Malaysian Art. Volume.2. (pg166-185). Kuala Lumpur. Rogue Art.

Balint, T. S., & Pangaro, P. (2017). Design space for space design: Dialogs through boundary objects at the intersections of art, design, science, and engineering. Acta Astronautica, 134, 41-53. Retrieved from https://www.sciencedirect.com/science/article/pii/S0094576516313509

Busch, K. (2009). Busch, K. (2009). Artistic research and the poetics of knowledge. Art & Research: A Journal of Ideas, Contexts and Methods, 2(2), 1-7. Retrieved from http://www.artandresearch.org.uk/v2n2/pdfs/busch.pdf

Dawa, M, N, A. (2008). Transformasi Tradisi Ke Arah Pembentukan Identiti. Susurmasa Seni Lukis Malaysia Bersama 50 Tahun Balai Seni Lukis Negara. Balai Seni Lukis Negara, Kuala Lumpur. pg 183.

Doyle, D. (2014). New Opportunities for Artistic Practice in Virtual Worlds. In Cyberworlds (CW), 2014 International Conference on (pp. 321-326). IEEE. Retrieved from http://ieeexplore.ieee.org/document/6980778/metrics

Eaves, S. (2014). Eaves, S. (2014). From art for art's sake to art as means of knowing: A rationale for advancing arts-based methods in research, practice and pedagogy. *Electronic Journal of Business Research Methods*, 12(2), 147-159. Retrieved from http://publications.aston.ac.uk/25803/1/Advancing_arts_based_methods_in_research_ practice_and_pedagogy.pdf

Janke, K. & Solicitor (2002) New Media Cultures: Protocols for Producing Indigenous Australian New Media. Aboriginal and Torres Strait Islander Arts Board, Australia Council. Retrieved from http://www.australiacouncil.gov.au/workspace/uploads/files/media-protocols-for-indigenous-5b4bfd105bfa3.pdf

Mahmood, M. (2008). Karya Ikonik 50 Tahun Seni Lukis Moden Malaysia. Susurmasa Seni Lukis Malaysia Bersama 50 Tahun Balai Seni Lukis Negara. Balai Seni Lukis Negara, Kuala Lumpur, pg 203 – 204.

Munemori, J., & Nagasawa, Y. (1991). Development and trial of groupware for organizational design and management: distributed and cooperative KJ method support system. *Information and Software Technology*, 33(4), 259-264. Retrieved from http://www.sciencedirect.com/science/article/pii/095058499190150A

Mohtarrudin, N., Kassim, F., & Sharifuddin, A. (2016). Nasty Beauty. Zaman, F. Q. & Baharuddin, N. (Eds). (2016). NYAWA '16: BRAIN. Nature's yield and wonders of art. Universiti Putra Malaysia Press. Selangor, Malaysia.

Neuman, W. L. (2003). Qualitative and Quantitative Research Designs. Social Research Methods. *Qualitative and Quantitative Approaches. Fifth Edition*. pg 137-168. United States of America. Library of Congress Cataloging-in-Publication Data.

Piyadasa, R. (2001). Rupa Malaysia Meninjau Seni Lukis Moden Malaysia, Balai Seni Lukis Negara, Kuala Lumpur

Platzer, A. (2012, June). The complete proof theory of hybrid systems. In Proceedings of the 2012 27th Annual IEEE/ACM Symposium on Logic in Computer Science (pp. 541-550). *IEEE Computer Society*. Retrieved from http://symbolaris.com/pub/completealign.pdf.

Piirma, P. (2014). Interdisciplinarity and Transdisciplinarity in Hybrid Art. P. Piirma & V. Valk (Eds.), Art & Science – Hybrid Art and Interdisciplinary Research (pp.24-28). Estonian Academy of Arts. Retrieved from http://www.kelomees.net/texts/RHIZOPE_catalogue.pdf

Rahman, K. A. A. A. (2007). The Hybridism Manifesto. Hybridism. Faculty of Applied and Creative Arts, Universiti Malaysia Sarawak.

Rajah, N. & Saidon, H, J. (1997). Pameran Seni Elektronik Pertama. National Art Gallery. Kuala Lumpur, Malaysia

Sabran, K. (2010). Music from Jupiter: Merging Worlds. SGE interview by *Thermalls.com*. Retrieved from http://kamalsabran.blogspot.my/2010/02/music-from-jupiter-merging-worlds-sge.html.

Selen, E. (2015). Cybernetic narrative: Modes of circularity, feedback and perception in new media artworks. *Kybernetes*, 44(8/9), 1380-1387. Retrieved from https://www.emeraldinsight.com/doi/pdfplus/10.1108/K-11-2014-0235

Sunarto, B. (2015). Basic Knowledge and Reasoning Process in the Art Creation. Open Journal of Philosophy, 5(05), 285. Retrieved from http://file.scirp.org/pdf/OJPP_2015051316493473.pdf

Yap, S. B. (2013). Re-Negotiating Spaces: Site, Space and Place in Contemporary Art in Malaysia. Khairuddin, N. H. Yong, B. Sabapathy, T. K. (Eds.). Reactions – New Critical Strategies Narratives in Malaysian Art. Volume.2. (pg297-308). Kuala Lumpur. RogueArt.

Yetisen, A. K. Coskun, A. F. England, G. Cho, S. Butt, H. Hurwitz, J. Kolle, M. Khademhosseini, A. Hart, A. J. Folch, A. & Yun, S. J. (2015) Art on the Nanoscale and Beyond. Advanced Materials© 2015 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim. Retrieved from https://onlinelibrary.wiley.com/doi/epdf/10.1002/adma.201502382

Yuan, G. Q., & Ben, D. N. (2008, November). Combining art and science of the integration of designs. In Computer-Aided Industrial Design and Conceptual Design, 2008. CAID/CD 2008. 9th International Conference on (pp. 910-912). IEEE. Retrieved from http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4730709