

05

SENIMAN BERNYALA: DIGITIZING AND EXPERIMENTING THE MOTIF OF ARTWORKS FOR IMMERSIVE EXPERIENCE: SYED AHMAD JAMAL

Nurkhairiah Sabrina Noorizam*, Nurlelawati Ab. Jalil, Shamzani Affendy Mohd. Din
Department of Applied Arts and Design, Kulliyyah of Architecture and Environmental Design, IIUM

ABSTRACT

As the world adjusted to the new normal following the pandemic, the art and culture industry, particularly museums and galleries, transformed its approaches to preserving and showcasing artworks. This study focuses on methods for digitizing the works of renowned local artist Syed Ahmad Jamal, with the goal of creating an immersive exhibition to ensure the long-term preservation and sustainability of his art. The study aims to preserve the artworks of local artists by digitizing them in a way that faithfully reflects their intended meanings and philosophies. These digital adaptations were then incorporated into an immersive art exhibition. To achieve this, data was collected through an analysis of selected case studies from both local and international immersive exhibitions and galleries. Additionally, a semi-structured interview was conducted with a senior member of the Galeri PETRONAS Art Collection Management Team, who brought over 30 years of experience in curating exhibitions. The collected data was analysed to inform the development of the final output: an immersive exhibition titled Seniman Bernyala. This exhibition featured a mini-immersive theater and a video presentation, showcasing animated, digitized versions of Syed Ahmad Jamal's artworks.

Keywords: digitizing, Immersive Exhibition, Syed Ahmad Jamal

*Corresponding author: nksabrina2112@gmail.com

INTRODUCTION

Seniman Bernyala is an exhibition that highlights the digitized artworks of Syed Ahmad Jamal, projected through a mini-immersive theater. This project emphasises the digital preservation of Malaysian contemporary artworks.

There are several reasons why artistic creations may not be accessible to the public. During the pandemic, the arts and culture industry was among the hardest hit, as museum and gallery closures prevented people from engaging with these spaces. Contemporary art faces even more complex challenges in providing digital alternatives for experiencing exhibitions, particularly when it involves traditional media such as painting and sculpture (Amorim & Teixeira, 2020). This abrupt shift compelled museums to rethink their strategies, address questions of relevance, and explore virtual rather than physical interactions (Noehrer, et al., 2021).

As the pandemic persisted, human behaviour increasingly adapted to digital environments. Digital artists, whose presence in museums has historically been limited, are now playing a more prominent role in the integration and visualisation of human digital experiences (Bowen and Giannini, 2021). In a post-pandemic digital society, immersive exhibitions have gained popularity, offering audiences the opportunity for engaging and experiential encounters (Noehrer, et al., 2021).

In light of these challenges and observations, this study aims to preserve the works of local artists by digitizing them in a way that stays true to their intended meanings and philosophies. These digitized artworks are then incorporated into immersive art exhibitions, ensuring their continued relevance and accessibility in a digital age.

LITERATURE REVIEW

DIGITIZATION & DIGITALISATION

There are several definitions that distinguish between digitizing and digitalizing. Digitization refers to the process of converting data into a digital form that can be easily read and processed by a computer (Oxford Learner's Dictionaries, 2023). It also encompasses the transformation of media from analog formats, such as printed text, audio, or video recordings, into digital formats (Habsary, Kurniawan and Bulan, 2021). On the other hand, digitalization refers to the process of transforming traditional work processes into electronic or digital forms, allowing for more varied and efficient modes of operation (Gradillas, et al., 2023).

In recent years, significant efforts have been made to digitize historical content to ensure its preservation and improve accessibility. According to Arora (2008), organisations choose digitization for various reasons and apply different methods to produce digital images based on specific criteria and intended uses. A fully digital approach can expand access, allowing a greater number of users to benefit from the content.

The digitization process for artworks begins with selecting the pieces to be converted into digital format. These artworks are then scanned using image scanners or cameras. Smith (2014) notes that following the scanning or image capture process, the data is often converted into different file formats depending on the intended use. Common formats include RAW images, Tagged Image File Format (TIFF), Portable Network Graphics (PNG), and Joint Photographic Experts Group (JPG/JPEG). Depending on the image's purpose, further processing or enhancement may be carried out using software like Adobe Photoshop.

IMMERSIVE EXHIBITION

According to Aceves-Sepulveda and Aslizadeh (2018), the term immersion refers to a state of complete absorption, marking a transition from one form of embodied existence to another. Yu and Yao (2023) further define immersive experiences in the context of information design as the use of human sensory and cognitive experiences to create digitally designed environments and scenes. This approach crafts an atmosphere that allows the audience to fully engage with a specific state or environment. The history of Western art reflects a long-standing fascination with creating immersive experiences. Artists have employed various techniques of illusion to overwhelm the senses and draw the observer into an alternate reality.

Allen (2022) highlights that the earliest known evidence of immersive art dates back to prehistoric times. Approximately 17,000 years ago, a Paleolithic tribe in southern France painted vivid depictions of bulls, stags, horses, felines, and other creatures on the walls and ceilings of their caves using mineral-based paints. These artworks were enhanced by sandstone lamps and hearths, which produced flickering light effects, giving the illusion of movement and bringing the creatures to life. The tradition of immersive art continued to evolve, with 360-degree painting reaching its peak during the medieval period. Frescoes were used to transform entire rooms into awe-inspiring environments, often depicting spiritual realms. These large-scale works were created using specialised chemicals and techniques to achieve their striking effects.

Over time, the art of illusion became a common tool for artists, drawing spectators deeper into their work. This progression also influenced the development of other immersive forms of artistic expression, such as theater, music, and oral storytelling, all of which shared the same goal of transporting audiences into another world.



Figure 1: Lascaux II Cave, France
(Ahmed, 2018)



Figure 2: The Sistine Chapel Ceiling
by Michelangelo 1508-1512, Italy
(Jean, 2008)

SYED AHMAD JAMAL

Datuk Syed Ahmad bin Syed Jamal was born in Bandar Maharani, Muar, Johor, on September 19, 1929 (Mahmood, 2000). Early in his life, he developed a deep appreciation for the natural landscapes of the countryside and spent much of his time observing his surroundings. He was also inquisitive and eager to learn. Syed Ahmad received his primary education in Malay and his secondary education in English in Johor Bahru.

Syed Ahmad Jamal pursued his higher education abroad, attending Chelsea School of Art (1951-1955), the Institute of Education at London University (1955-1956), the School of the Art Institute of Chicago (1963-1964), and the University of Hawaii, Honolulu (1973-1974). Throughout his career, he received numerous prestigious awards, including the Ahli Mangku Negara Award (1969), the Kesatria Mangku Negara Award (1983), the Australian Cultural Award (1984), the ASEAN Cultural Award Visual Art Award (1987), and the National Artist Award (1995). In 1996, he was honored with the title of Panglima Jasa Negara (Mahmood, 2000).

His education, personality, and high sensitivity to both his personal and global surroundings, along with his natural and social environment, have significantly influenced the inspiration and philosophy behind his artworks. Additionally, his extensive experience in the field of art has shaped his creative approach. According to Mahmood (2000), one of the most prominent themes in Syed Ahmad Jamal's work is socio-political issues.

Syed Ahmad Jamal's creative pursuits are driven by the desire for aesthetic quality. He prefers using refined and aesthetically pleasing visual expressions, in contrast to the confrontational language employed by some postmodern artists in the West, Japan, and even in Malaysia, who express their anger and frustration through their art. The "Malay" colors Syed Ahmad Jamal uses are commonly found in traditional crafts such as batik and weaving. These colors include green, sky blue, purple, orange, yellow, and the crimson hue of a ripe areca nut. Purple, sky blue, and other "Malay" colors are often incorporated as well. Syed Ahmad Jamal states that as a Malay artist, his deep awareness of his Malay identity and the spirit of Malay art naturally inspire him to select these colors to communicate his message.



Figure 3: Syed Ahmad Jamal
(The Star Online, 2018)

RESEARCH METHODOLOGY

To gather data, the researchers primarily relied on interviews and case studies. The first interview was conducted with a member of the Galeri PETRONAS' Art Collection Management team, who brings over 30 years of experience in curating exhibitions. A second interview was held with a staff member from the Digital Art Gallery to better understand immersive exhibitions and the role of digital art.

In addition, the study incorporated visual observation through case studies to meet its objectives. This involved the researchers visiting recent immersive exhibitions in Malaysia, including the Van Gogh Alive Exhibition, and exploring a local pioneering gallery, the Digital Art Gallery, which specialises in immersive art and digital displays. A camera was used to document these observations for subsequent analysis. The visual observations allowed the researcher to gain deeper insights into the technologies utilised in immersive exhibitions and the methods used to engage the viewers' senses with art. These findings also helped inform the researcher's understanding of the processes involved in digitizing artworks.

CONCEPT

The theme of *Seniman Bernyala* is derived from the Malay words for “artist” and “alive.” While the direct translation of *bernyala* is “lit,” in this context, the word carries a double meaning that reflects both the outcome of the project and its underlying motif. The theme focuses on bringing the artist’s artworks to life within the same world as us. Through the movement of the artwork, it mimics the lively environment that surrounds us. Everything we see around us and within our own bodies is filled with energy, emotion, feelings, and meaning. This concept imparts both the significance and the motion of life to the artworks.

ARTWORK PROPOSED

The exhibition includes five artworks. The *Heaven and Earth* series is based on the concept of faith and the praise of the Creator’s glory. Although it is not considered traditional Islamic art due to the absence of geometric patterns and arabesques, it uniquely reflects these themes. Syed Ahmad Jamal’s love of Malay literature also sparked his interest in nature, which ultimately led to the creation of the *Mount Ledang* series in the 1970s. The final artwork, *Self Portrait*, is Syed Ahmad Jamal’s personal interpretation of his own portrait.



Figure 4: Semangat Ledang, 1999 (PETRONAS, 2000)



Figure 5: Impian Ledang, 2000 (PETRONAS, 2000)



Figure 6: Antara Langit & Bumi I, 1998 (PETRONAS, 2000)



Figure 7: Antara Langit & Bumi II, 1998 (PETRONAS, 2000)



Figure 8: Self Portrait, 1999 (PETRONAS, 2000)

CASE STUDY

DIGITIZING TECHNIQUES

To digitize artworks, most of the process after scanning is carried out in Adobe Photoshop, where the images are edited and refined. Photoshop is ideal for separating layers of motifs within a painting, allowing for greater flexibility in the animation process. Several techniques are utilised during this stage, including masking, cleaning, and drawing.

Masking is a powerful Photoshop tool for isolating parts of an image by hiding or revealing areas. It is useful for merging images, removing backgrounds, or cutting out objects, allowing precise adjustments without altering the rest of the image. Cleaning removes unwanted elements using tools like the eraser and magic eraser. The eraser offers precise control for small areas, while the magic eraser quickly removes large sections of uniform color, such as backgrounds. This ensures a clean, polished image, free of imperfections, ready for further processing. Drawing involves tools like the pen, brush, and stamp to enhance or repair the image. The pen tool creates precise paths, the brush tool is ideal for freehand drawing and shading, and the healing and stamp tools retouch and replicate sections to maintain consistent textures.

For animation, Adobe After Effects is the go-to software, transforming static images with motion and visual effects. Keyframing is a core technique, setting start and end points for animations like fading, zooming, or panning, with smooth transitions in between. An additional effect used in After Effects is the puppet tool, which adds natural movement by placing pins on an image. These pins act as anchors, allowing independent movement of parts, perfect for animating limbs or fabric with realistic, fluid motion.

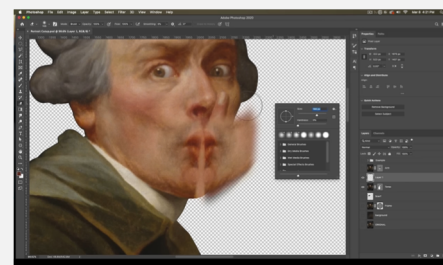


Figure 9: Cleaning and replicate process (ECAbrams, 2020)

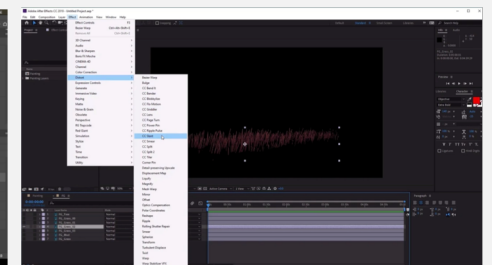


Figure 10: Adding animation effect process (Envato, 2021)

IMMERSIVE APPLICATION

Projectors and speakers are essential technologies for creating immersive exhibition experiences (Gao, Wu and Zhou, 2022). Projectors deliver large-scale, dynamic visuals that transform walls, floors, and ceilings, extending the artwork beyond its traditional boundaries. For the best effect, these projections require a darkened space, where visuals can appear clearer and more vibrant, enhancing the immersive impact.

Speakers add an auditory dimension, using sound—whether ambient noise, music, or narration—to complement the visuals and deepen the viewer's engagement. Together, projection and sound draw the audience into the art, making them feel part of the scene. This approach is central to modern immersive exhibitions, as seen in events like Van Gogh Alive and the digital showcases at the Digital Art Gallery, where visuals and sound seamlessly combine to create fully immersive environments.



Figure 11: Visual Audio Immersive Display at Van Gogh Alive exhibition.

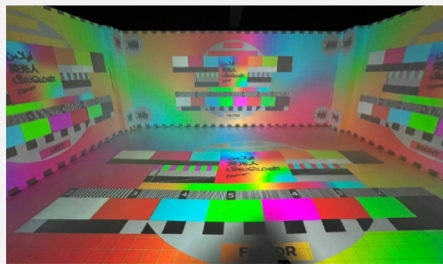


Figure 12: Template mapping output using 2 projector in the room at DAG



Figure 13: Final outcome of artwork at DAG

PROJECT FINDINGS

Data was collected and analysed using qualitative methods, including a semi-structured interview with Tuan Abdul Latif Bin Mad Nor from Galeri PETRONAS and case study observations. The analysis focused on immersive exhibitions, examining installation setups, digital artworks, sensory engagement, and the technologies used. This informed the selection of a mini-immersive theater using a pop-up tent and a Q3 Pro projector.

The mini-immersive theater was chosen for its ability to create a controlled, intimate environment, enhancing interaction with digitized artworks through sound and movement. Its compact size and adaptability make it suitable for various exhibition spaces. The pop-up tent provides a portable, enclosed space, blocking external light and noise while being easy to set up and move. The Q3 Pro projector was selected for its high-quality visuals and portability. Its sharp, vibrant projections and smart features, like wireless connectivity, ensure seamless integration and operation in the theater.

Animations of recurring motifs in Syed Ahmad Jamal's artworks, such as twinkling stars, moving clouds, and rustling paddy leaves, were created using Adobe Photoshop and After Effects. These were enhanced with sound effects like wind, cicadas, and chickens, enriching the sensory experience and deepening viewers' engagement.

INITIAL PROPOSAL

The product chosen was a mini-immersive theater, designed to be compact and portable. It focuses on engaging the senses of vision and hearing to enhance the immersive experience. The setup features a projector with built-in speakers, enclosed in a tent to create a controlled environment for the projections.



Figure 14: Tent (Shopee,2023)



Figure 15: Projector (Shopee,2023)

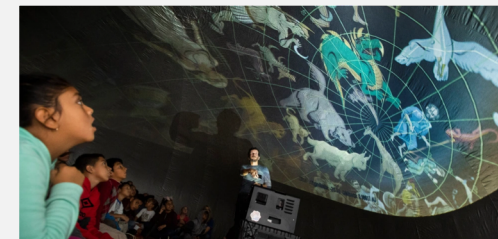


Figure 16: Example of final product outcome (Paul, 2018)

FINAL PROPOSAL

The final product, a mini-immersive theater with digital projections and sound, successfully preserved and presented Syed Ahmad Jamal's artworks in an engaging way. Digitizing and animating the artworks captured the artist's intent and philosophy, offering a sensory experience that reflected the energy of the pieces. The dark tent and large projection area improved the visuals, while sound effects brought the natural environments that inspired the artist to life. The portable theater also ensures the artworks remain accessible and sustainable, reaching a broader audience in a modern, interactive format.



Figure 17: Perspective view of product

MAKING PROCESS

DIGITIZING THE ARTWORKS

The digitization process begins with scanning the artwork using a camera to capture a high-quality image. The main motifs, such as stars, clouds, mountains, and figures, are then selected and separated from the background in Adobe Photoshop, with each element placed on its own layer. This includes cleaning, drawing, and refining each layer. Once edited, the Photoshop file is imported into Adobe After Effects, where each layer is retained for animation. Effects like CC Slant are applied to animate elements such as grass, and keyframes control the animation's timing. Finally, background sounds and music are added to the video which enhance the immersive experience.

The diagram below shows the simplified steps for the digitizing process.

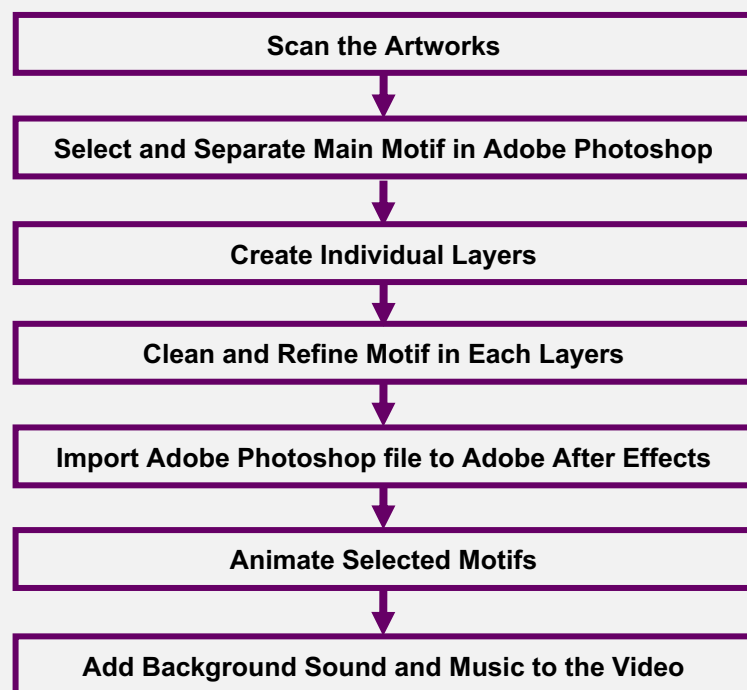


Figure 18: Product outcome



Figure 19: Scanned artworks using camera

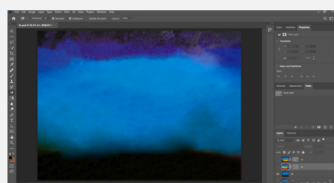


Figure 20: Separated layers of motifs in Adobe Photoshop

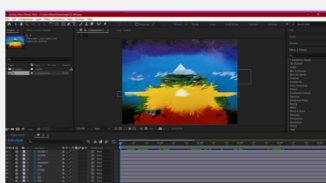


Figure 21: Motion graphic added in Adobe After Effect

SETTING UP THE PRODUCTS

The tent was fully enclosed to ensure a dark environment, enhancing projection clarity.



Figure 22: The tent was set up



Figure 23: Tent cover were made using plastic bag



Figure 24: The cover on top the tent was placed

ASSEMBLING THE TENT EXTENSION

An extension was added to expand the projection area, allowing for a larger, more impactful display.



Figure 25: PVC pipe cut to size



Figure 26: Attached with 3-way elbow PVC joint



Figure 27: Black cloth placed on top of the structure

FINAL PRODUCT

The result was a mini-immersive theater showcasing digitized artworks, providing a dynamic and engaging experience for viewers.



Figure 28: Mini-immersive theatre

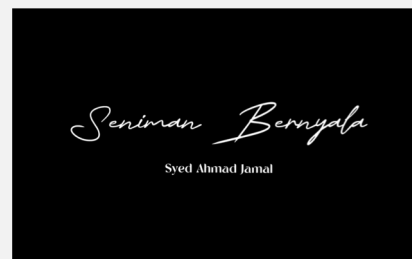


Figure 29: Final Video of Seniman Bernyala Exhibition



Figure 30: Projection outcome of Antara Langit & Bumi I

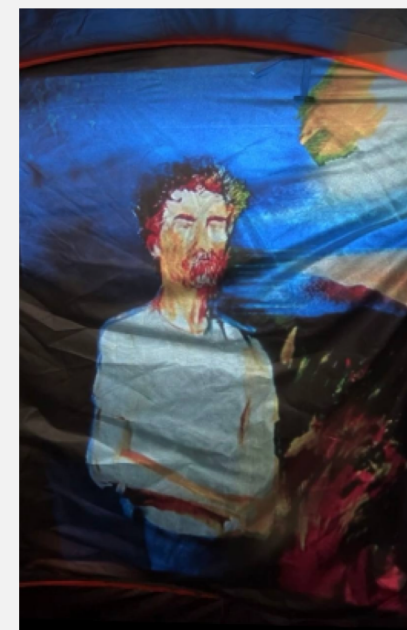


Figure 31: Projection outcome of Self Portrait

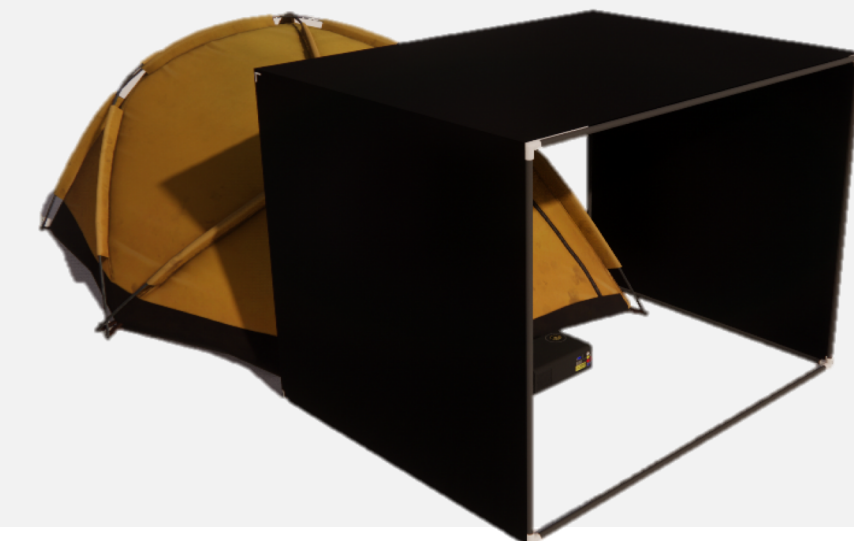


Figure 32: Visitors enjoying the exhibition

TECHNICAL DRAWING



FINAL OUTCOME



CONCLUSION

In conclusion, the digitalization of art and the emergence of immersive exhibitions represent transformative developments in the art world. These innovations have redefined how we interact with and experience art, allowing viewers to engage with artworks in more personal, meaningful ways. Through technological advancements, art is no longer confined to traditional viewing methods but can now envelop audiences in dynamic, interactive environments. This shift not only enhances the creative possibilities for artists but also broadens art's accessibility to a global audience. As technology continues to evolve, the potential for even more immersive and engaging artistic experiences will expand, further enriching the way we perceive and connect with art.

ACKNOWLEDGEMENT

Gratitude and appreciation of the main author go to supervisors, Assoc. Prof. Ts. Dr. Shamzani Affendy Mohd Din for guidance, and Asst. Prof. Ts. Dr. Nurlələwati Binti Ab. Jalil for support. Appreciation to the team at Galeri PETRONAS for providing valuable insights into local art.

REFERENCES

- Aceves-Sepulveda, G., & Aslizadeh, M. (2018, September 26). *Alternative Beginnings Towards other Histories of Immersive Arts and Technologies*. ResearchGate; University of Illinois Main Library.
https://www.researchgate.net/publication/328645791_Alternative_Beginnings_Towards_other_Histories_of_Immersive_Arts_and_Technologies
- Allen, C. (2022). The origins of immersive experiences. <https://www.futurelearn.com/info/courses/introduction-to-virtual-reality/0/steps/98674>
- Almeida, F., Faria, D., & André Queirós. (2017, September). *Strengths and Limitations of Qualitative and Quantitative Research Methods*. ResearchGate; unknown.
https://www.researchgate.net/publication/319852576_Strengths_and_Limitations_of_Qualitative_and_Quantitative_Research_Methods
- Arora, J. (2018). Unit-7 Digitization: Concept, Need, Methods and Equipment. *Egyankosh.ac.in*.
<http://egyankosh.ac.in/handle/123456789/76913>
- Bowen, J. P., & Giannini, T. (2021, July). Digitality: A reality check. In *Proceedings of EVA London 2021* (pp. 12-19). BCS Learning & Development.
- Cambridge Dictionary. (2023, May 3). preservation. @CambridgeWords.
<https://dictionary.cambridge.org/dictionary/english/preservation>
- Gao, Y., Wu, D., & Zhou, L. (2022). How to improve immersive experience?. *IEEE Transactions on Multimedia*.
- Gradillas, Maria, and Llewellyn D. W. Thomas. 2023. "Distinguishing Digitization and Digitalization: A Systematic Review and Conceptual Framework." *Journal of Product Innovation Management* 1–32. <https://doi.org/10.1111/jpim.12690>
- Habsary, D., Kurniawan, A., & Bulan, I. (2021, November). Digitalization of Arts. In *Proceedings of the Tenth International Conference on Languages and Arts (ICLA 2021)* (pp. 246-250). Atlantis Press.
- Mahmood M. (2000). Antara Langit & Bumi : Syed Ahmad Jamal
- Noehrer, L., Gilmore, A., Jay, C., & Yehudi, Y. (2021). The impact of COVID-19 on digital data practices in museums and art galleries in the UK and the US. *Humanities and Social Sciences Communications*, 8(1).
- Smith K. A. (2014). digitizing Ephemera: A Case Study for Research, Strategy, and Implementation of a Digitization Plan for... ResearchGate; unknown.
https://www.researchgate.net/publication/288003820_digitizing_Ephemera_A_Case_Study_for_Research_Strategy_and_Implementation_of_a_Digitization_Plan_for_the_National_Gallery_of_Art_Library's_Vertical_Files
- <https://www.thestar.com.my/news/nation/2018/10/30/local-painters-work-fetches-rm420000-renowned-artists-art-highest-at-auction>
- Yu, D., & Yao, W. (2023, February). Research on holographic display and technology application of art museum based on immersive design. In *Journal of Physics: Conference Series* (Vol. 2425, No. 1, p. 012048). IOP Publishing.