

**THE METAVERSE FOR MALI BUCHA: DANCE OFFERING,
A HYBRID STAGE PERFORMANCE IN SINGAPORE (13–15 OCTOBER 2023)**

“All the world’s a stage, and all the men and women merely players”.
Shakespeare, *As You Like It*, 1623 (Act 2, Scene 7)



**FIGURE 1: Promotional poster for the *Mali Bucha: Dance Offering*
© The Esplanade Co Ltd**

The world of performing arts is constantly evolving, embracing innovative technologies and pushing the boundaries of the possible. In the realm of dance and theater, choreographers and artists explore new ways to engage audiences, creating immersive and participatory experiences. *Mali Bucha: Dance Offering*, a hybrid stage performance that combined dance, virtual reality (VR), and the *ram kae bon* (รำแก้บน) ritual dance was one such recent performance premiered at the Esplanade Theater Studio in Singapore on 13–15 October 2023

[FIGURE 1].¹ In this production notice, we delve into the behind-the-scene world of *Mali Bucha* and the role of the author, as the computer graphics (CG) supervisor and visual effects (VFX) director, in creating the “metaverse” that was an integral part of the show.

Ram kae bon is an ancient votive dance that has been performed at shrines and temples across Thailand and mainland

¹ The official information is listed on the theater website: <https://www.esplanade.com/whats-on/festivals-and-series/series/dans-focus/events/mali-bucha-dance-offering> (accessed 31 Dec. 2023).



FIGURE 2: The *Mali Bucha* metaverse created in OpenBrush
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Southeast Asia for centuries. Even today, this traditional dance continues to grace certain Thai shrines, such as the renowned Erawan Shrine in Bangkok.² Devotees engage traditional performers, compensating them to dance before the shrine, believing that this act will lead to the fulfillment of their prayers. The dance therefore serves as a tool for negotiation between humans and higher beings, a means to make wishes come true. The central concept is the belief that a skilled dancer—a messenger—enhances the likelihood of wish fulfillment. Thus, individual humans can communicate with higher beings,

convey their desires, and express gratitude, all through the medium of dance. The title for the performance, *mali bucha* (มาลีบูชา), literally translated as “paying respect by offering flowers”, reflects the importance of garlands (usually jasmine) used in these rituals.

Mali Bucha: Dance Offering is an immersive, modern, participatory iteration of *ram kae bon*, bringing elements of the physical and digital worlds together. In this iteration of the dance, audience members were invited to enter a digital shrine using VR technology [FIGURE 2]. The digital shrine represents a metaverse or virtual reality space, providing users with the ability to engage with a computer-generated environment and interact with other users. Duality is the central concept motivating *Mali Bucha*, weaving together various opposing elements such as economics

² Dr Paphutsorn Koong Wonggratanapitak recently discussed the adverse impact of the COVID-19 pandemic on performers at the Erawan Shrine and how they have navigated through these challenges in their careers. For more details, see: <https://seaartforum.nafa.edu.sg/archive/2021/dr-paphutsorn-koong-wonggratanapitak> (accessed 16 January 2024).



FIGURE 3: The author (standing) created the choreographer's headdress digitally using Open Brush
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/ecology, image/sound, old/new, mundane/transcendent. The fusion of tradition and technology permeated the performance, hopefully leading to the creation of a unique and unforgettable audience experience.

In the creation of *Mali Bucha*, the author of this notice acted as CG supervisor and VFX director of the team of “virtualizers”. The “virtualizers”, as the word connotes, brought the digital metaverse to life, using computer-generated elements and immersive technologies to create the audience's experience. Upon entering the metaverse, participants can opt for one of four primary wishes: wealth, health, family, and freedom.

Once a wish is chosen and articulated, the avatar receives a virtual flower, allowing them to virtually stroll and place it in front of a large animal



FIGURE 4: Virtual headdress created in OpenBrush
© Gomesh Karnchanapayap

statue symbolizing each wish. A successfully placed wish manifests as a doll-size statue of the corresponding animal. Simultaneously, within the metaverse, the dancer has the option to select a specific dance sequence aligned with the chosen wish. For instance, if someone wishes for a happy family, the dancer will execute a monkey dance, conveying the message to the celestial realm.

The metaverse in *Mali Bucha* was designed and developed using OpenBrush, a virtual reality program that allows artists and creators to craft digital 3D elements. This enables artists to work in virtual space, shaping and sculpting their visions in ways analogous to traditional sculpting or painting [FIGURES 3–4].



FIGURE 5: The rooster scene created in OpenBrush © Gomesh Karnchanapayap

Using OpenBrush, the author crafted the digital shrine and its surroundings, infusing them with the aesthetics and symbolism of the ancient ritual. Sacred animals used as votive sacrifices in the digital shrine are symbolic: the rooster symbolizes wealth [FIGURE 5], the monkey represents family and consciousness, the zebra signifies health and safety [FIGURE 6], and the crane stands for freedom. These symbols were carefully chosen to align with the core concepts of *ram kae bon* and the audience aspirations as described above. The metaverse thus became a canvas for these symbols to come to life. During the performance, the audience could connect with the symbolism on a personal level as they made wishes and offered flowers, imbuing these digital creatures with meaning and significance.

Once the 3D models were created in OpenBrush, they were exported and assembled in Unity [FIGURE 7], a widely used game development platform ideal for creating interactive experiences. Unity allowed for the integration of these models into the VR experience, enabling the performer and audience to interact with and explore the digital shrine.



FIGURE 6: The zebra scene created in Open Brush © Gomesh Karnchanapayap

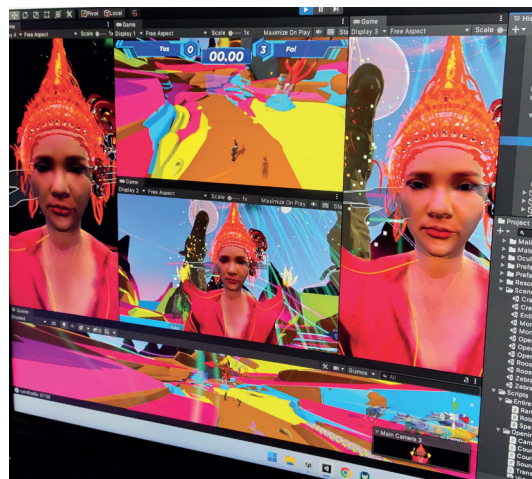


FIGURE 7: Digital elements were assembled in Unity © Gomesh Karnchanapayap



FIGURE 8: The choreographer, Kornkarn Rungsawang, leads a participant through the *Mali Bucha* metaverse
© Gomesh Karnchanapayap



FIGURE 9: The choreographer, Kornkarn Rungsawang, performs the monkey dance in the *Mali Bucha* metaverse © Gomesh Karnchanapayap

The metaverse in *Mali Bucha* was not a passive digital backdrop, but an integral part of the performance. The audience were not mere spectators but active participants in the ritual. Using augmented reality (AR) and virtual reality (VR), they were transported into the digital shrine, where they could make wishes and offer flowers or animals, just as they would in a physical temple. To visually present the metaverse to the entire audience, the view from the VR headset was projected in parallel on the backdrop [FIGURE 8].

Kornkarn Rungsawang, the main performer and interface between the material plane (the real-time audience) and the digital realm (the virtual shrine), played a crucial role in communicating the wishes and thanksgiving of the audience to higher beings through dance. Thus, using the power of

technology an attempt was made at enhancing an ancient ritual, offering an innovative approach to reinventing tradition [FIGURE 9].

The metaverse in *Mali Bucha* served multiple purposes in the performance. It acted as a bridge between the past and the present, offering a fresh perspective on ancient rituals and traditions. It also provided a platform for audience engagement and participation.

The metaverse is a testament to the power of technology in the arts. It demonstrates how digital tools can be used to create immersive and transformative experiences, blurring the lines between reality and the virtual realm. In *Mali Bucha*, the metaverse was not just a gimmick but also an integral part of the storytelling, enhancing the ritual performance and its significance.

Mali Bucha exemplified the effective utilization of modern technology within the realm of performing arts, demonstrating its cultural significance. It celebrated the rich regional tradition of votive dance and the deep-rooted beliefs in the power of dance to communicate with higher beings.

In a rapidly changing world, such performances might help preserve and propagate cultural heritage, making it accessible to new generations.

Moreover, *Mali Bucha* served as a bridge between cultures. It introduced a global audience to the beauty of ancient regional rituals and traditions from Southeast Asia while embracing the universality of human desires and aspirations. Within this context, the metaverse emerged as a tool for facilitating cultural exchange, fostering a collective experience among diverse audiences.

Additionally, *Mali Bucha* stood as evidence of the continuous evolution of the performing arts. The integration of technology, particularly the creation of immersive metaverse experiences, opens up new possibilities for storytelling and audience engagement. By blurring the lines between reality and the digital realm, this performance pioneered a new genre within stage productions.

As technology continues to advance, we can expect to see more innovations in the realm of the performing arts. The metaverse offers a limitless canvas

for creativity, where artists and creators can craft unique and transformative experiences. In essence, *Mali Bucha: Dance Offering* serves as a tangible illustration of the possibilities that arise when traditional art forms intersect with cutting-edge technology.

PRODUCTION CREDITS

- *Concept, Choreography and Dance:* Kornkarn Rungsawang (Thailand)
- *VR/AR Design:* The virtualizers (Thailand)
- *CG Supervision/VFX Direction:* Gomesh Karnchanapayap (Thailand)
- *Technical Direction/Lead Program:* Siwat Suksri (Thailand)
- *3D Scanning/3D Animation/Rigging:* Piyanon Somboon (Thailand)
- *Assistant Technical Direction:* Wijittra Prasatkaew (Thailand)
- *Sound Design:* Zai Tang (UK/Singapore)
- *Lighting Design:* Asako Miura (Japan)
- *Dramaturg:* Tang Fu Kuen (Singapore/Norway)
- *Costume Design:* Manit Theppatimaporn & Kanapoot Viruttanachai (Thailand)
- *Production Stage Management:* Yap Seok Hui (Singapore)
- *Technical Direction:* ARTFACTORY (Singapore)
- *Production:* Sojirat Singholka (Thailand)
- *Residency supported by:* Kinasaki International Arts Center (Japan)

Gomesch Karnchanapayap
Silpakorn University, Bangkok
karnchanapayap_g@silpakorn.edu