

Traditional Puppetry as an Aesthetic Framework for Contemporary Digital Animation

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Abstract: Contemporary visual storytelling continues to be shaped by the traditional puppetry aesthetic system. Our research focused on the aesthetic principles of five traditional puppetry styles (Kathputli from India; Tholpavakoothu from India; Wayang Kulit from Indonesia; Piyongxi from China; and, Bunraku from Japan) and involved qualitative comparative analyses of scholarly works, visual documentation, and performance records. The findings identified six aesthetic principles common to all five styles: kinesthetic stylization; structural characterization; exaggerated gesture; symbolic interpretation; rhythmic pacing; and performative quality; thus, demonstrating that traditional puppetry is a transferable means of expressing emotion and that it can maintain its cultural authenticity in a digital, 21st century context. This paper makes a significant contribution toward visual arts and animation studies by illustrating how traditional puppetry can provide inspiration for culturally relevant digital narratives and can assist in conserving intangible cultural heritage.

Keywords: Puppetry; Digital animation, Visual aesthetics, Cultural heritage, Storytelling, Preservation.

INTRODUCTION

Puppetry is one of the oldest means of visual expression and storytelling, thereby representing the artistic, philosophical and cultural identity of cultures around the world. Although they have served primarily as entertainment, puppet cultures have also historically served as a means of education, religious expression, social commentary, and collective memory transference. Every style of puppetry, including Kathputli from Rajasthan, Tholpavakoothu from Kerala, Wayang Kulit from Indonesia, Piyongxi from China and Bunraku from Japan, demonstrates an intricate relationship among movement, visual symbolism, rhythm, and style to effectively express complex narratives and cultural values. With the advancements in digital animation and immersive technology, there are now many new ways of recording and redesigning traditional performing arts. These technologies are regularly used by museums,

virtual reality apps, interactive exhibitions, and digital storytelling platforms via animation to document and promote intangible cultural heritage. Many of these digital adaptations focus exclusively on reproducing the outward appearance of puppets, while failing to take into account the elements of their aesthetic systems which dictate the manner in which motion, characterization and symbolic significance are expressed. Consequently, many digital reproductions of traditional puppetry do not retain the informal cultural significance that are essential to the expressive quality of traditional puppetry.

There has been research completed surrounding cultural preservation, virtual heritage, and technological innovation in puppetry. However, little research has addressed the identification of shared aesthetic elements that go beyond regionalized characteristics, and could provide a conceptual framework for the practices of animation in contemporary contexts. Understanding shared aesthetic principles is important to the development of digital adaptations that maintain cultural authenticity and can effectively communicate with audiences today. This research study facilitates the identification of these aesthetic properties by examining five internationally recognized traditional puppetry traditions using a qualitative, comparative analysis. Using scholarly literature, film footage from recorded performances and visual documentation, literature reviewed identified six recurring aesthetic principles: kinesthetic stylization, structural characterization, gesture as exaggeration, symbolic representation, rhythmic pacing and performability. The research suggests that puppetry does not solely exist as an ethnographic or historical artifact, instead represents a sophisticated visual language from which to inform the expressive logic of digital animation today.

This paper will expand on the topics of visual communication and Visual Communication in terms of Animation Studies, Digital Arts, and Heritage Preservation, by exploring how traditional performance aesthetics and contemporary animations are similar in how they each convey a story through movement and style. This study also proposes that a successful digital adaptation of any traditional performance should, instead of just recreating visual representation, focus on the successful transfer of movement (i.e., emotional communication) by utilizing their entire expressiveness; as a result, the renewed artwork will continue to support both cultural sustainability and creativity.

LITERATURE REVIEW

Ranuhandoko, N., et al. (2024). This research explores the embodied metamorphosis of the Limbuk-Cangik figures in wayang kulit purwa, a cultural practice within Javanese Islam. It is grounded in a constructivist paradigm and is influenced by phenomenology and performativity-based viewpoints. This study presents an epistemological framework for creative metamorphosis that locates the body as a platform for the expression and negotiation of Islamic moral principles. Therefore, this paper's objective is to examine how these changes reshape the characters' social, educational, and moral roles in modern Muslim societies. Participant observation, in-depth interviews with puppeteers, analysis of digital archives, and visual studies are all components of the study's ethnographic fieldwork methodology, which is practice-led. The study employs triangulation across sources and methodologies to analyze data through an interactive model that encompasses condensation, presentation, and verification. This method allows for the integration of empirical cultural analysis with first-hand information obtained from creative work. Theoretically, the concept positions wayang as a medium that mediates religious values in material and social ways, drawing on cultural hermeneutics, embodiment theory, and theories of Islamic performativity. The results show a change from a ceremonial shadow medium to a more communicative three-dimensional embodiment, which improves audience involvement without compromising ethics. This metamorphosis does not undermine Islamic moral principles but rather restores their social role by means of adaptive visual and performance tactics. This research adds to the growing body of practice-based theory in Islamic art studies via its proposal of visual cultural *ijtihād*, a framework wherein creative activity functions as a means of producing new knowledge. Furthermore, it proves that cultural da'wah may grow via restoring traditions while maintaining its cultural and moral credibility in modern Muslim culture.

Awasthi, S., & Mehta, R. (2024). Keeping Kathputli traditional folk art alive in Rajasthan, India, is the focus of this research, which explores the cultural, social, and economic aspects at play. The project aims to address the key issues artists experience in retaining their livelihoods in the modern economy by engaging with a community of craftspeople via immersive fieldwork and participatory observation. To understand the current socio-economic environment, the difficulties encountered, and the transitional shifts taken to meet the daily demands and sustain the craft, a series of interviews were conducted with the craftsmen. To promote the sustainability of crafts, the results emphasize the necessity of dialogue-driven

design processes, cultural sensitivity, and powerful market ties. Within the framework of a globalized economy and changing cultural landscapes, our study adds to the larger conversation about reviving craft, participatory design, and empowering artisans.

Lin, C., Xia, G., Nickpour, F., & Chen, Y. (2025) Computer technology is becoming popular in the digital era in promoting and spreading cultural heritage. Modern usage allows making these traditions public with the assistance of modern exhibition technologies in the museum and interactive digital platforms and makes people feel cultural heritage through multisensory perception and immersion. Nonetheless, currently, there is no efficient way of measuring how far these museums and online applications have maintained the cultural integrity of artistic legacies. This paper constructs an artistic genealogy of Chinese shadow puppetry that inspires the meme concept, based on descriptions found in the literature and field research conducted at museums. This structure defines the main artistic aspects of shadow puppetry and can also be used as a model of assessment. The findings explain that current museum displays and digital solutions associated with shadow puppetry are more inclined to emphasise the material aspects of the artwork, including the beautiful leather and paper objects, but pay little attention to the artistic interpretations of light and shadow. This paper is dedicated to investigating how to bridge the gap between traditional artistic authenticity and digital innovation, with the aim of highlighting the positive impact of incorporating digital technologies into the audience's experience while preserving cultural authenticity.

Noce, K. (2025). Animated environmental rituals are the focus of this brief presentation, which strives to restore animation to its rightful place as an eco-friendly cinematic tradition by reimagining it through the lens of nature. Reconnecting art-making with the natural world, it draws on methods like En Plein Air animation, papermaking, and ecologically conscious storytelling. It also highlights collaborative rituals and stresses ecological awareness. This session uses experiences from Quinta das Relvas, which were shaped by diary-like animation methods and permaculture ideas, to show how mixing sustainable practices with creative storytelling can make a big difference. Animation education and practice can change by using natural materials, exploring permaculture-inspired systems, and embracing community-focused and self-reflective methods. Fostering material resourcefulness, awareness, and profound involvement with natural settings, Animated Environmental Rituals challenges established animation processes. This method tackles critical problems related to social justice

and the environment while expanding animation's potential as a medium for personal development, ecological awareness, and social reform.

Chau, M. T. (2024). A virtual museum application called TeTieuVR was developed to introduce and promote the Vietnamese national heritage art form of TeTieu puppetry. The creation of this app is presented in this article. Twenty three-dimensional puppet models representing four distinct tales are created as a result of this study, which adds to the record of the TeTieu artisan community. Additionally, a virtual reality (VR) app was developed to offer users an immersive experience, educating them about TeTieu puppetry, its history, the achievements of craftspeople, and the TeTieu craft village and allowing them to watch live performances of TeTieu puppet tricks. Both users and puppetry craftsmen have expressed their satisfaction with the application, demonstrating its ability to preserve and promote TeTieu puppetry's cultural history. This puppetry style is an important element of Vietnam's national heritage.

METHODOLOGY

The research design of this study is qualitative analytical based on secondary source usage in a systematic way. The methodology has as its goal to identify, characterize and document the core aesthetic features of traditional puppetry in relation to the different regional forms of puppetry – that is, Kathputli (Rajasthan), Tholpavakoothu (Kerala), Wayang Kulit (Java), Piyongxi (China), and Bunraku (Japan) – and the aesthetics of puppetry as manifest through these regional forms. The secondary sources referenced for this research included peer reviewed journal articles, scholarly monographs, photographic databases and recorded performance documentation. The materials were engaged with analytically and comparatively independent of any historical context and analytically focused on isolating the aesthetic and performative principles applicable to the central research question of how the expressive logic found in traditional puppetry can be viewed as a translatable aesthetic system. The analytical process was completed in two phases. The first phase of the analysis conducted close readings of the scholarly literature and focused viewings of the recorded performances to arrive at six recurring aesthetic themes which differentiate traditional puppetry across the numerous regional forms examined in this study: kinesthetic stylization, structural characterization, gesture exaggeration, symbolic content, rhythmic pacing and performativity.

These aesthetic themes were not predetermined categories imposed upon the research but rather themes that emerged during the research process through constant interaction with the primary documentary and performance resources. Each theme was characterized by identifying both the specific expressiveness associated with the theme and the processes through which the theme operates and the cultural logic which associates the expressiveness with the theme from tradition to tradition. The second phase of the analysis used a comparative cross-tradition analysis to validate the generalizability of the six aesthetic themes across the multiple regional expressions. The same criteria for analysis applied for all six tradition sources were applied consistently to determine the degree to which the aesthetic themes are consistent across the regional expression. The comparative cross-traditional analysis determined that the six themes constitute the same aesthetic principles of traditional puppetry as form and not as artifacts of a specific cultural context, thus providing a stable platform for discussion that will follow. The criteria used for the evaluation of the content analysed in the two phases was aesthetics and performance and not historical or ethnographic, reflecting the study's concern and interest in what traditional puppetry does, in terms of expressiveness, as well as how the expressiveness of traditional puppetry can be contextualized in relation to contemporary digital animation.

ANALYSIS AND DISCUSSION

- **Kinesthetic Stylization and the Movement Language of Traditional Puppetry**

The concept of kinesthetic stylization describes how puppets are intended to be deliberately animated but are not bound by the same physical rules as objects in our natural universe would usually abide by (i.e., gravity). Rather than using real world-like movements to communicate emotion, puppeteers have developed culturally defined movements through various global cultures that have had specific vocabularies assigned to those movements (which have been codified, abbreviated, and carry an emotional definition) to be utilized versus realistic-looking movement. The swinging and bobbing actions of the Kathputli puppet from Rajasthan are an example of this exaggeration through its string tension creating a distinctly kinetic movement that conveys an animated character's energy and presence, separate from the actual way a human being would move; conversely, in Tholpavakoothu shadow puppetry from Kerala, movement is defined by the physical attributes of the shadow source and therefore has movements which are specific to the medium of shadow. In Wayang Kulit, movement is

defined by a defined vernacular; alus (refined) characters move slowly and with minimal action whereas kasar (coarse) characters use large, vigorous, sweeping actions. The dynamic logic supporting kinesthetic stylization is composed of two key components: concentrated intentionality — movement appears intentional and communicative; and aesthetic amplification — certain expressive qualities are exaggerated to create a greater emotional experience. Kinesthetic stylization provides not only artistic merit but also is the basis for digital translation.

- **Structural Characterization and Visual Form as Cultural Code**

Structural characterization entails using a puppet's visual appearance and physical engineering methodically to express its characterological (psychological), social, moral, and cultural attributes as a whole. The Wayang Kulit format of character design is the most researched system of visual characterization, as all primary visual characteristics (nose shape, angle of the eyes, skin tone, costume details) contain encoded meanings that inform an audience about a character's moral character and spiritual nature. The refined hero, Arjuna, is recognised by his slender long nose, downward-pointed almond-shaped eyes, and a combination of gold and black colouration, whereas the devilish, evil character has a characteristic flat, upward-pointing nose, widely round eyes, and a red or white skin tone.

Indian art forms also rely on the use of colour and costume to visually encode characters' attributes. For example, the Tholpavakoothu characterisation system assigns colour; Rama is assigned the colour green, while villainous characters are assigned either the red or black colour scheme. Similarly, in the Kathputli art form, specific sets of colours and/or the way specific colours are combined and ornamentation customarily signify a character's socio-economic status and/or role in the narrative. Exaggerated proportions of characters (overly large heads, hands, etc.) and their exaggerated facial features serve to accentuate or define shapes, allowing puppets to be seen from a distance and/or through shadow screens. Costume and ornamentation also function as a support system for structural characterisation (they are not merely decoration); for example, all of the traditional systems mentioned above provide audiences with a means to understand structurally specific character traits through visual means. The importance of understanding the conventions associated with each tradition to produce digital puppets with meaningful cultural intelligence, cannot be overstated.

- **Gesture Exaggeration in the Expressive Body**

The intentional enhancement of motion beyond what would normally occur for the purposes of expression is called gesture exaggeration. There are three types of exaggeration: exaggerated spatial movement refers to expanding the arc of a gesture to allow for greater visibility; exaggerated temporal movement refers to changing the speed or length of a form of motion to create meaning that is more dramatic; and qualitative exaggeration is modifying the force and speed of motion to indicate the emotional state associated with that form of motion. Sun (2025) states that exaggerated motion is one of the primary distinguishing aesthetic characteristics of Chinese shadow puppetry; therefore, it must also exist in digital adaptations. Cohen (2019) states the exaggeration of each of the characters in Wayang Kulit has a specific utility regarding the use of moral and philosophical stories through that form of art. Lin, Xia, Nickpour, and Chen (2025) echo the sentiments that digital adaptations cannot eliminate the tradition of exaggerating for the sake of implementing more realistic forms of motion, as they would lose a vital element of visual language. What is critical to understand is that traditional puppetry does not use unrealistic exaggeration, it is calibrated. That is, established conventions are in place which define what will be exaggerated, how it will be exaggerated, and for what reason it will be exaggerated. The digital animator must work from calibrated guidelines rather than from amplifying all forms of motion in an uncontrolled manner.

- **Symbolic Representation in Traditional Puppetry**

Puppetry shows are not merely a representation of a story but also create Embedding cultural, moral- philosophical and cosmological values through the way the puppet is presented to the audience. The Wayang Kulit screen which creates the separation between the world of man and the world of gods is enhanced by the oil lamp which represents a source of light from God (the Divine). The way the dalang (puppeteer) is oriented to the audience represents the cosmological difference between what is real in this world and what is represented in shadows. Tholpavakoothu performances in temples in Kerala performed as part of the Bharani festival cycle represent acts of worship where the performance of the Ramayana recounting of historical events is re-presented in a sacred, spiritual context. The stories that comprise the Wayang Kulit also stage drama through the oppositions (that are represented) between alus (spiritual) and kasar (mundane); dharma (righteousness) and adharma (nihility); allowing viewers to be involved in the exploration of the principles through which we should conduct

ourselves as individuals and develop spiritually. The symbolic representations contained within these narratives provide both opportunities and challenges to create digital animations with the same depth and symbolism as the original work while translating the cultural symbols for an audience today without reducing them to mere visual format.

- **Rhythmic Pacing and the Structure of Performance**

The use of rhythmic pacing of puppeteering, the integration of movement & narrative with music, is a fundamental aesthetic characteristic of traditional puppetry. As Cohen (2019) illustrates, the wayang kulit dares to assert a direct relationship between gamelan orchestras and puppet movement through linking gending (musical compositions) to specific types of characters & emotions & types of action/plots. The use of dholak drums & bhortal cymbals in Kathputli serves as the basis of rhythm for the different types of scenes. Tholpavakoothu has timed puppet movement to the metrical & rhythmic structure of the sung verses of Ramayana. Additionally, expert puppeteers have used stillness as an expressive medium, alternating between motion & stillness to create temporal rhythm and emotional tension. The major implication for digital animation is that timing should be regarded as a primary means of expression — generated with an awareness of and sensitivity toward cultural differences — rather than simply after the fact. Finally, sound design should be regarded as an integral part of a complete animated work; temporal organization must be structured in conjunction with the rhythm conventions of the tradition that is being adapted.

- **Performativity and Puppet Presence**

The most important but most difficult to convey out of the central components of the aesthetic of quality of performance - is an animation quality that produces animated experience through intelligence that performs and reacts to what is happening around it by creating some form of an animated entity or an animation of an entity. Performativity in puppeteering has been accomplished via continually adjusting the movement of the two entities (puppeteer and puppet) through small adjustments in motion and through kinaesthetic empathy exhibited between both entities. Despite performing puppets with live bodies, traditional puppetry will continue to have a similar appearance for individuals through the use of digital media; however, digital media transforms the embodiment of both the puppeteer and puppet. Kong, Wang, and Tang (2023) investigated the use of digital puppetry in real-time as a means of maintaining a responsive presence/dynamic quality within the digital realm. Animation

techniques (including semi-real-time and precise timing) that are present within traditional puppetry performance will provide a way for animators to animate in a manner that mimics traditional puppetry's responsive presence, given that animation produced through pre-determined frame-by-frame is not a viable method of creating an animation/animation entity.

CONCLUSION

This research shows that traditional puppet shows follow a highly complex and cohesive aesthetic system that goes well beyond just conveying a cultural event but also serves as a way to communicate via other forms of visual medium. By conducting a cross-analysis of six different kinds of puppetry (Kathputli, Tholpavakoothu, Wayang Kulit, Piyongxi & Bunraku), there were recurring principles found to be elements of all six styles: Kinesthetic stylization, structural characterization, exaggerated gestures, symbolic representation, rhythmic pacing, and performative nature. The results indicate that there are several common avenues of visual storytelling shared amongst these diverse traditions and that these characteristics serve as generic paradigms of visual storytelling rather than as characteristics specific to their unique cultural context. The similarity among these various forms of puppetry provides a basis for applying these basic visual storytelling techniques in developing animated content that is culturally appropriate. In addition to creating animation that is simply a visual replica, successful digital rendering will preserve these unique visual characteristics through their movement, symbolization, timing, characterization and performative nature.

By establishing traditional forms of puppetry as a key conceptual source for contemporary animated practice and digital preservation of individual cultural heritage, this research has contributed to the body of knowledge on visual art and animation. Additionally, it emphasizes the importance of combining authentic cultural expression with modern technology so that the artistic elements and symbolic meaning associated with each traditional art form are maintained in their digital expression. Future work can be completed through practice-based animation projects, movement analysis, audience testing/feedback gathering and/or interactive technology (e.g., virtual reality, augmented reality and real-time digital puppetry) to further develop the ongoing dialogue between traditional cultures and developing forms of media (digital) to support the continued preservation of intangibly expressed cultural form.

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