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Reconstructing the Toy Attributes and Branding of Huaiyang Mud Dog--From Folk Ritual Object to Modern Toy Brand Construction

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Abstract: Huaiyang Mud Dog is a representative folk intangible cultural heritage clay sculpture originating from the Ren Zu Hui at Taihao Mausoleum in Huaiyang, Henan Province. It possesses both the function of primitive totem worship and the attributes of folk children's toys, earning it the reputation of being a "true totem and living fossil." Existing academic research primarily focuses on historical origins, plastic arts, cultural symbols, folk beliefs, and the current state of inheritance, generally lacking a systematic exploration from the dual perspectives of modern toy studies and brand management. Against the backdrop of the rise of "Guochao" consumption, the popularization of children's intangible cultural heritage education, and the marketization of cultural tourism and creative products, Huaiyang Mud Dog faces practical dilemmas such as ambiguous toy functions, insufficient child suitability, non-standardized products, absence of brand positioning, low intellectual property development, and singular market channels. This paper takes toy attributes and brand construction as the core entry point, systematically sorting out the core gaps in current Huaiyang Mud Dog research concerning toy function pedigree, child safety and experience, product standardization, brand positioning, intellectual property operation, channel communication, and marketization mechanisms. Combining field observations and intangible cultural heritage activation practices, it proposes pathways and strategies for the transformation of Huaiyang Mud Dog from a "folk ritual object from temple fairs" to a "modern intangible cultural heritage toy brand." This provides theoretical references and practical insights for the living inheritance, child-friendly transformation, and brand-oriented operation of folk clay sculpture intangible cultural heritage.

Keywords: Huaiyang Mud Dog; Folk Toys; Intangible Cultural Heritage Activation; Toy Attributes; Branding; Intellectual Property Construction; Child-Friendly

1. Introduction

Huaiyang Mud Dog is a traditional clay sculpture originating from the Ren Zu Hui at the Taihao Mausoleum in Huaiyang, Henan Province. Crafted from locally sourced yellow clay, it is produced through a sequence of manual processes, including kneading, whistle-hole shaping, and surface painting. Its morphological system encompasses nearly one hundred distinct forms, such as the human-faced monkey, straw-hat tiger, and nine-headed bird [1]. These objects are not purely visual artifacts but also function as sound-producing toys, integrating ritual significance with playful interaction. As a nationally recognized intangible cultural heritage, it embodies layered cultural meanings, including the mythological narratives of Fuxi and Nuwa, fertility symbolism, and totemic belief systems, and has been regarded as both a "true totem" and a "living fossil." Consequently, it serves as a vital medium for understanding the folk culture and artistic traditions of the Central Plains region [2].

Despite its rich cultural significance, existing scholarship has largely concentrated on its folkloric origins, stylistic features, symbolic interpretations, and heritage preservation

strategies. Within these research trajectories, Huaiyang Mud Dog is predominantly framed as a static cultural artifact or ethnographic object, rather than as a dynamic product with functional and experiential dimensions. Although limited discussions have touched upon its potential in cultural and creative design, there remains a conspicuous absence of systematic inquiry into its functional structure, safety considerations, and user experience from the perspective of toy studies. Furthermore, research adopting a brand management perspective-particularly concerning market positioning, product standardization, and intellectual property development-remains significantly underdeveloped.

This imbalance in research focus has resulted in a critical theoretical and practical gap. The identity of Huaiyang Mud Dog as a toy has not been rigorously defined, and the transformation of this traditional artifact into a modern product system lacks a coherent conceptual foundation. As a consequence, several structural limitations persist, including ambiguous functional positioning, the absence of age-appropriate design evaluation, inconsistent product specifications, and unclear brand identity. These constraints confine the Mud Dog to the context of traditional temple fairs and prevent its effective integration into the contemporary children's consumer market [3].

In response to these limitations, this study approaches Huaiyang Mud Dog from the perspective of toy design and product transformation. It systematically examines its functional, experiential, and symbolic attributes as a traditional play object and explores strategies for reconstructing these attributes within a modern design framework. The central research question guiding this study is: how can the toy attributes of Huaiyang Mud Dog be redefined and systematized to support its transformation from a folk craft artifact into a contemporary cultural toy brand?

To address this question, a qualitative design analysis methodology is adopted, grounded in literature synthesis and artifact-based interpretation. Through a structured examination of its design features and play characteristics, this study proposes a conceptual framework aimed at reconstructing traditional toy attributes and facilitating their translation into a standardized, market-oriented cultural toy system.

2. Literature Review

2.1. Exploration of Huaiyang Mud Dog in Folk Art Research

Existing research on Huaiyang Mud Dog can be broadly categorized into five primary directions, forming a relatively comprehensive yet structurally imbalanced knowledge framework [4]. First, a substantial body of work focuses on its historical origins and folkloric background, examining its connections with the mythological narratives of Fuxi and Nuwa, fertility worship traditions, and the ritual context of the Taihao Mausoleum Temple Fair, thereby reconstructing its early sacrificial and ceremonial functions [5]. Second, a prominent line of inquiry centers on its artistic characteristics, including formal modeling, color schemes, decorative patterns, and stylistic features, positioning it as a representative example of Central Plains folk art.

Third, research has explored its cultural symbolism and underlying meanings, interpreting the belief systems, cosmological concepts, and life philosophies embedded in its animal imagery and geometric motifs. Fourth, a growing number of studies address issues of inheritance and preservation, analyzing the structure of artisan communities, transformations in production modes, and the role of policy frameworks, while proposing strategies for sustainable transmission [6]. Fifth, emerging research has begun to examine its potential in cultural and creative design, with a primary focus on visual adaptation and the development of tourism-oriented products; however, such efforts often remain at a conceptual or stylistic level, lacking deeper functional integration.

Taken together, these research streams contribute to a systematic understanding of the cultural, artistic, and symbolic value of Huaiyang Mud Dog. Nevertheless, a fundamental limitation persists: the dominant analytical perspective consistently frames it as a static folk artifact, cultural specimen, or artistic object [7]. Its identity as a functional,

interactive, and experience-oriented toy product remains largely overlooked, resulting in a significant gap between cultural interpretation and product-oriented transformation.

2.2. Research on Folk Toys and Cultural Product Transformation

In the field of folk toy research, a growing body of scholarship has begun to engage with the modernization and transformation of traditional toys. Certain studies examine the aesthetic features and cultural connotations of representative cases such as the Gaomi Clay Roaring Tiger [8]. Other works investigate development pathways for toy production within the broader context of folk handicraft inheritance. In addition, some research addresses the innovative design of cultural and creative products derived from folk art under the framework of intangible cultural heritage [9].

Nevertheless, these studies remain limited in scope and depth. They are largely confined to isolated case analyses or to the enumeration of design methods, without advancing toward a coherent and systematic analytical framework for defining toy attributes. As a result, they have yet to construct a theoretical model capable of guiding the transformation of traditional toys into contemporary product systems and brand-oriented structures.

From the perspective of toy studies, there remains a significant lack of rigorous research on critical issues such as child suitability, safety standards, and play experience design, particularly for sound-producing toys and clay-based toys. This absence of professional inquiry leaves essential functional and safety dimensions insufficiently addressed.

At the level of brand studies, key topics-including brand positioning, product standardization, and intellectual property management-are also underexplored. This gap further constrains the evolution of folk

toys from culturally embedded artifacts into systematically developed and market-oriented cultural brands.

2.3. Research Gaps

In summary, existing research exhibits a dual absence: Firstly, toy attributes are not professionally defined-Mud Dog's sound-producing function, handling experience, child suitability, and educational value are not included in systematic research, lacking professional analysis from a toy studies perspective on its functional structure, safety standards, and play system. Secondly, brand logic is not systematically constructed-brand management issues such as market positioning, product standardization, intellectual property image, and channel operation are long absent, keeping it at the level of a "temple fair commodity" without forming the systematic support needed for a modern toy brand. This gap results in Mud Dog research being split between cultural interpretation and market practice, making it difficult to respond to the transformation needs arising from intangible cultural heritage activation and the "Guochao" consumption context [10].

3. Research Methods

3.1. Research Design

This study adopts a qualitative design research method to explore the potential of transforming Huaiyang Mud Dog into a cultural toy product. The research focus lies in analyzing the design attributes of the traditional Mud Dog toy and exploring how to reconstruct these attributes to support contemporary toy design and brand development. As a conceptual design study based on existing textual materials and artifact interpretation, this paper does not involve field investigations, user testing, or laboratory safety assessments. Instead, it systematically reviews existing literature and artifact descriptions to construct a conceptual framework that can guide the reconstruction of toy attributes and brand transformation.

3.2. Literature Review Method

The literature review conducted in this study draws on three primary categories of sources. The first category consists of academic publications on Huaiyang Mud Dog retrieved from major Chinese databases, including CNKI, Wanfang, and VIP. These works span multiple disciplinary perspectives, such as folklore studies, art history, and the protection of intangible cultural heritage, providing foundational insights into its cultural origins and artistic characteristics.

The second category includes relevant literature on folk toys and the transformation of cultural products. These studies incorporate case analyses of representative folk artifacts, as well as discussions on the development trajectories of traditional handicrafts within contemporary design and industrial contexts.

The third category comprises descriptive and interpretive materials related to Huaiyang Mud Dog artifacts. These sources document aspects such as form typologies, color schemes, whistle mechanisms, and production techniques, while also incorporating visual and audiovisual materials that illustrate usage contexts and functional characteristics.

The literature search was conducted using key terms including "Huaiyang Mud Dog," "folk toys," "intangible cultural heritage toys," and "clay whistles," thereby capturing major academic contributions from the 1980s to the present. Through a systematic review and synthesis of these materials, this study identifies five principal thematic directions in existing research and further reveals a structural gap characterized by the insufficient attention to both toy-specific attributes and brand-oriented development logic.

3.3. Analysis of Mud Dog's Toy Attributes Based on Artifacts

The core analytical focus of this study is the Huaiyang Mud Dog as a material artifact. The analysis is grounded in the artifact descriptions documented in existing literature and related descriptive materials, which collectively provide a basis for examining its characteristics from a toy design perspective. Building upon these sources, the present study constructs a three-dimensional analytical framework consisting of functional attributes, experiential attributes, and symbolic attributes.

Functional attributes refer to the operational principles and physical mechanisms underlying the artifact. This includes the structural configuration of its sound-producing system, such as the positioning of the whistle hole, the design of the airflow channel, and the resulting tonal characteristics. It also encompasses the stability and ergonomics of the form, as well as the intrinsic properties of the clay material. The analysis in this dimension emphasizes the extent to which these functional elements support or constrain the artifact's viability as a toy.

Experiential attributes concern the interaction between the user-particularly children-and the artifact. This dimension examines factors such as grip comfort, tactile sensation, ease of use in producing sound, visual attractiveness of the form, and the capacity of the object to stimulate play behavior. The focus lies on how traditional usage scenarios align with contemporary expectations of play experience and whether the artifact satisfies basic usability and engagement criteria required of modern toys.

Symbolic attributes relate to the cultural meanings embedded within the artifact's design. These include the selection and abstraction of totemic imagery, the symbolic implications of the color system, and the narrative and representational functions of decorative patterns. This dimension analyzes how cultural symbols are encoded within the object and explores the possibilities for adapting or reinterpreting these symbols to suit child-centered contexts without undermining their cultural integrity.

It is important to note that the analytical approach adopted in this study relies primarily on textual descriptions and previously published research findings, without direct physical examination of artifacts or empirical testing involving child users. This limitation suggests that future research should incorporate fieldwork involving artifact

collection, interviews with inheritors, observational studies of children's interactions, and systematic safety testing. Such empirical extensions would enable further validation and refinement of the analytical framework and the proposed pathways for transformation.

4. Analysis of Huaiyang Mud Dog's Toy Attributes

This chapter analyzes the functional, experiential, and symbolic attributes of Huaiyang Mud Dog from the perspective of toy design, following the logic of "describing features --- explaining interaction methods --- elaborating modern limitations," laying the foundation for subsequent attribute reconstruction.

4.1. Functional Attributes

The core functions of Mud Dog include whistle sound production, hollow clay construction, and handheld form. The whistle mechanism creates airflow vibration through a whistle hole at the rear, providing immediate feedback when children blow it. However, limitations include single tones, requiring effort to blow, and the risk of the whistle piece falling off and being swallowed. The hollow clay construction, using yellow clay, feels warm to the touch and is lightweight, but it is fragile, sheds dust, cannot be cleaned, and traditional pigments contain excessive heavy metals, failing to meet modern toy safety standards. The handheld forms, typically sized between 5-15 cm, are easy to carry and handle, but the forms are static, lacking structural designs like assembly or deformation, making it difficult to meet children's expectations for manipulable toys.

4.2. Experiential Attributes

The blowing experience provides auditory pleasure and a sense of control, but the gameplay lacks progression and cannot support multiplayer interaction or rule-based games. The tactile experience stems from the natural feel of the clay material, which has educational value, but the dried clay hardens and cannot be kneaded, and it is irreparable if broken. The visual experience comes from the high-contrast colors painted on a black background, offering strong recognizability. However, it has not been studied from the perspective of children's aesthetics, and the abstract patterns are difficult for young children to understand. Imaginative play relies on the narrative potential of the animal forms; children can spontaneously engage in role-playing, but the lack of systematic guidance through picture books or animations makes it difficult to sustain prolonged play independently.

4.3. Symbolic Attributes

The animal imagery originates from totem worship. Figures like the human-faced monkey and nine-headed bird embody the myths of Fuxi and Nuwa and fertility beliefs. Geometric patterns, such as triangles and diamonds, are symbolized representations of reproductive organs, conveying the worship of life against the pitch-black background. Folk beliefs endow it with the spiritual power to ward off evil and bring good luck, making it a material carrier for religious practice. Transforming it into a modern toy faces three challenges: the primitive connotations are obscure and difficult to understand, there is a lack of child-friendly adaptation, and the fertility symbols may raise parental concerns about being "inappropriate for children."

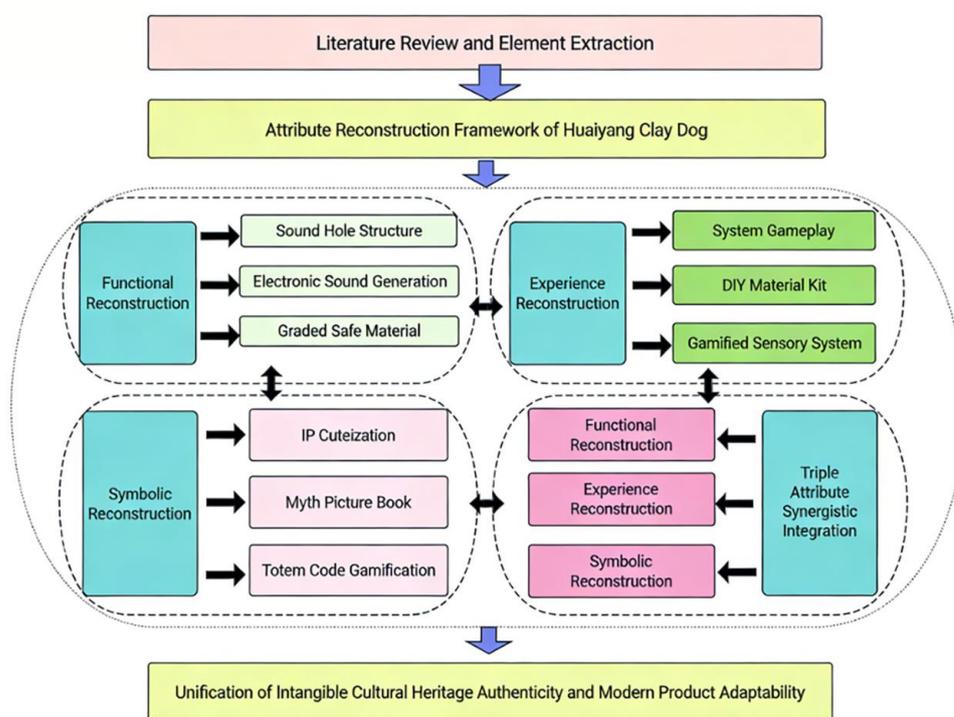### 4.4. Framework for Attribute Reconstruction

1. Functional Reconstruction: Develop multi-hole structures for varied tones, introduce electronic sound modules; establish a graded material system, using safe materials like soft rubber and eco-friendly resin for children's product lines; develop assembly and deformation structures to increase gameplay levels.

2. Experiential Reconstruction: Design systematic gameplay like whistle-blowing competitions, totem recognition games, and role-playing; provide DIY material kits to

support independent creation; integrate fragmented sensory experiences into a game system with goals, rules, and feedback.

3. Symbolic Reconstruction: Refine core intellectual property images like the human-faced monkey and nine-headed bird through "cuteification" design; create graded picture book stories and animated shorts based on Fuxi-Nuwa mythology; transform patterns into "totem codes" within games, allowing children to learn cultural knowledge naturally through play.

4. Synergistic Reconstruction of Triple Attributes: Functional attributes determine "if it can be played with," experiential attributes determine "if it is fun to play with," and symbolic attributes determine "why it is worth playing with." Core skills are preserved by inheritors, while modern transformation is executed by a design team, achieving a balance between cultural authenticity and product adaptability (Figure 1).

Figure 1. Technical Roadmap for Reconstructing the Toy Attributes of Huaiyang Mud Dog (Drawn by the Author).

5. Framework for Attribute Reconstruction

Based on the attribute analysis in Section 4, this chapter proposes reconstruction principles and design strategies from the three dimensions of function, experience, and symbolism, aiming to transform the primitive attributes of traditional Mud Dogs into effective resources for modern toy design, laying the product foundation for branding.

5.1. Reconstruction of Functional Attributes

Addressing limitations such as single whistle tones, unsafe materials, and rigid forms, functional reconstruction should follow three principles: "safety, modularity, and interactivity."

1. The "Safety Principle" involves a baseline upgrade of traditional materials and processes. Children's product lines must fully comply with national toy safety standards like GB 6675, using tested eco-friendly pigments to eliminate heavy metals and harmful substances. To address fragility and shedding, introduce alternative materials like soft

rubber, vinyl, and food-grade silicone to achieve chewability, washability, and durability. Simultaneously, improve the whistle mouth design using an integrated molding structure to eliminate falling off risk and control whistle decibels within a safe range.

2. The "Modularity Principle" aims to break through the limitations of single forms. Disassemble traditional fixed forms into assemblable and detachable components, e.g., head, torso, and base formed independently, allowing children to freely combine them to create new images. Modularity not only increases gameplay levels but also leaves space for future expansion accessories like clothing or props, forming a sustainable product system.

3. The "Interactivity Principle" responds to modern children's expectations for dynamic feedback. While retaining the traditional clay whistle mechanism, simple electronic modules (e.g., touch-activated sound, light-controlled sound effects) can be selectively embedded, but excessive electronization that dilutes the handmade texture should be avoided. More crucially, design physical interactive structures, such as rotatable heads or movable limbs, ensuring the toy remains playable even without batteries.

5.2. Reconstruction of Experiential Attributes

The goal of experiential reconstruction is to integrate fragmented sensory stimuli into a game system with goals, rules, and feedback, enhancing immersion and replay value. Core strategies include "gamification design, socialization extension, and multi-sensory integration."

1. "Gamification Design" transforms traditional play into structured games. For example, upgrade single blowing to a "Whistle Challenge": using different whistle hole combinations to produce scales, children can imitate animal calls or simple melodies; design totem matching cards where children need to find the corresponding Mud Dog form based on card prompts; develop "Myth Puzzles" combining Mud Dog components with story scenes, triggering narrative audio upon completion. These designs endow toys with clear goals and progressive challenges.

2. "Socialization Extension" expands individual play to multi-player interaction. Design cooperative gameplay, such as two children each holding a whistle cooperating to blow a fixed rhythm; or competitive games, competing on whistle duration or form recognition speed. Accompany with collectible series of forms, encouraging children to exchange and share, naturally forming social currency. Online, develop lightweight mini-programs to track collection progress and unlock virtual badges, bridging offline toys and online social interaction.

3. "Multi-sensory Integration" strengthens the integrated experience of traditional touch, hearing, and sight. Retain partial clay texture while adding different tactile sensations like frosted or smooth finishes; auditorily, besides the whistle, include QR codes on audio picture books for scanning to listen to totem stories; visually, use the high-contrast color system and reinforce graphic symbols on packaging and instruction manuals to form unified sensory memory points.

5.3. Reconstruction of Symbolic Attributes

The core of symbolic reconstruction is to transform primitive cultural connotations into understandable narratives for children and communicable resources for the brand, achieving a leap from "cultural symbol" to "brand asset." Strategies include "cuteification of intellectual property images, gamification of symbols, and construction of a story universe."

1. "Cuteification of Intellectual Property Images": Refine four core totems-the human-faced monkey, nine-headed bird, straw-hat tiger, and doll fish. While retaining their primitive form characteristics, adjust proportions, exaggerate expressions, and round out lines to align with contemporary children's aesthetics. Endow each image with distinct

personality traits, such as the human-faced monkey as a wise elder, the nine-headed bird as a curious explorer, and the straw-hat tiger as a brave guardian, forming a differentiated character matrix.

2. "Gamification of Symbols": Transform traditional patterns into interactive game elements. For example, design triangle and diamond patterns as "Totem Codes," where children unlock hidden gameplay or collect points by identifying different pattern combinations; develop pattern stickers and rubbing tools allowing children to freely decorate their toys, learning symbol meanings subtly. Patterns can also serve as auxiliary graphics for the visual identity system, applied to packaging and peripheral products to reinforce brand memory.

3. "Construction of a Story Universe": Surrounding the myths of Fuxi and Nuwa and the origin legends of Mud Dog, create graded content systems: for younger children, use picture books and audio stories presenting simple plots; for school-age children, develop animated shorts and interactive comics; for parent-child interaction, provide scripts based on mythological characters supporting family role-playing games. Link story content with toy design, e.g., specific form toys attached with exclusive story cards, scanning which reveals corresponding animated segments, forming a consumption experience where "the toy is the entry point to the story."

The above reconstruction strategies do not negate tradition. Instead, under the premise of safeguarding core skills (kneading, whistle-making, blackening, patterning), they enable Mud Dog to retain its cultural genes while gaining market competitiveness through the modern transformation of function, experience, and symbolism. The synergistic effect of the triple attributes lays a solid product foundation for subsequent brand positioning, product matrix, and intellectual property operation.

6. Theoretical Significance

6.1. Theoretical Insights for Heritage Toy Design

This study proposes a three-dimensional analytical framework that integrates functional, experiential, and symbolic attributes, thereby offering a new theoretical perspective for the study of folk toys. Existing research has largely approached Huaiyang Mud Dog as a form of folk art or cultural heritage, with primary attention given to its historical origins, formal characteristics, and symbolic meanings, while rarely examining its design logic as a children's play object from the standpoint of toy studies. By contrast, this study reorients the analytical focus from viewing it as a "cultural specimen" to treating it as a "toy in its own right," thereby uncovering the functional constraints, experiential deficiencies, and symbolic transformation challenges inherent in traditional folk toys within a contemporary context. In doing so, it extends and enriches the scope of intangible cultural heritage research.

The significance of this framework lies in its capacity to synthesize previously fragmented research concerns into a coherent and operational analytical tool. The functional dimension establishes connections with materials science and product safety, the experiential dimension aligns with theories of child development and game design, and the symbolic dimension bridges cultural studies with brand narrative construction. Through the integrated analysis of these three dimensions, the study shifts folk toy research from static cultural description toward dynamic design-oriented diagnosis, while also providing a transferable methodological reference for the study and transformation of similar heritage-based toys.

6.2. Practical Significance for Cultural Product Branding

The reconstruction framework proposed in this study offers multiple insights for cultural product designers, heritage protection practitioners, and cultural toy brand developers.

For cultural product designers, the framework provides a transformation pathway from traditional artifact to modern product. Functional reconstruction emphasizes safety, modularity, and interactivity principles, helping designers systematically identify and address modern compliance issues while retaining core traditional processes. The gamification, socialization, and multi-sensory integration strategies in experiential reconstruction inject contemporary game design thinking into traditional play, enabling products to continuously attract child users. The intellectual property cuteification, symbol gamification, and story universe construction in symbolic reconstruction offer concrete methods for the creative transformation of cultural symbols.

For heritage protection practitioners, this study demonstrates a feasible approach of "promoting protection through utilization." Traditional protection models emphasize documentation, preservation, and static conservation, while the attribute reconstruction framework places living inheritance within product innovation. Core skills (kneading, whistle-making, blackening, patterning) are preserved by inheritors, while modern transformation is executed by a design team. This division of labor safeguards the authenticity of the craft while creating sustainable economic benefits for inheritors, shifting intangible cultural heritage protection from "blood transfusion" to "blood production."

For cultural toy brand developers, the three-dimensional framework in this study can serve as a foundational tool for product planning and brand positioning. Functional attributes determine whether a product can enter formal toy channels, experiential attributes determine user retention and word-of-mouth, and symbolic attributes determine brand premium and cultural distinctiveness. Synergistic effort among these three is essential for establishing differentiated advantages in the competitive "Guochao" toy market.

6.3. Research Limitations and Future Research

This study has the following limitations. First, the analysis is based on artifact descriptions recorded in literature and existing research findings, lacking direct examination and systematic collection of physical samples. Accurate data on some functional details, such as whistle decibels and grip dimensions, are difficult to obtain. Second, the study does not include field observations or user testing. Actual interaction patterns between children and Mud Dog, interest duration, and play preferences are inferred from existing textual materials, lacking empirical support. Third, the proposed reconstruction framework has not been validated through design practice; its feasibility and effectiveness require further testing.

Based on these limitations, future research can be deepened in the following directions. First, conduct physical artifact testing and safety assessments, systematically collecting basic data on Mud Dog's material composition, structural strength, and whistle frequency to provide a scientific basis for functional reconstruction. Second, introduce child user testing through observations, interviews, and experiments to obtain genuine feedback from children of different ages on Mud Dog's forms, gameplay, and narratives, optimizing experiential design strategies. Third, conduct design practice research by applying the reconstruction framework to specific product development, testing the framework's effectiveness through iterative design and market testing. Fourth, expand comparative research perspectives, comparing Huaiyang Mud Dog with other folk toys like the Gaomi Clay Roaring Tiger or Xunxian Clay Cooing Pigeon, to explore common patterns and individual pathways in the modern transformation of folk toys.

7. Conclusion

This study explores the pathway for transforming Huaiyang Mud Dog from a folk ritual object to a modern toy brand from the dual perspectives of toy design and brand construction. It aims to fill the dual gaps in existing research regarding toy attribute

analysis and branding logic, providing theoretical references and practical insights for the living inheritance of folk clay sculpture intangible cultural heritage.

Through a systematic analysis of the functional, experiential, and symbolic attributes of Huaiyang Mud Dog, the study reveals three core findings. First, at the functional level: while the traditional whistle sound, hollow clay construction, and handheld forms embody folk wisdom, they suffer from prominent safety hazards, rigid forms, and single gameplay, making them difficult to adapt to modern toy safety standards and children's operational habits. Second, at the experiential level: traditional experiences like blowing, touching, seeing, and imaginative play are fragmented and spontaneous, lacking systematic gameplay design and gamified guidance, failing to support sustained replay and deep immersion. Third, at the symbolic level: the cultural connotations of totem worship and fertility beliefs are profound, but the primitive symbols are obscure and difficult to understand. The lack of child-friendly narrative transformation creates a disconnect with contemporary children's cognition.

Addressing these issues, the study proposes a three-dimensional reconstruction framework. Functional reconstruction follows the principles of safety, modularity, and interactivity to resolve material and form limitations. Experiential reconstruction uses strategies of gamification design, socialization extension, and multi-sensory integration to integrate fragmented sensations into a structured game system. Symbolic reconstruction adopts pathways of intellectual property image cuteification, symbol gamification, and story universe construction to transform cultural connotations into communicable brand narratives.

The main contributions of this study are: firstly, constructing an analytical framework for folk toys that integrates the triple attributes of function, experience, and symbolism, providing a transferable methodological tool for research on similar heritage toys; secondly, introducing perspectives from toy studies and brand management into intangible cultural heritage research, expanding the theoretical boundaries of traditional folk art studies; and finally, proposing a living inheritance approach of "safeguarding core skills, transforming peripheral attributes," offering an operational framework for balancing intangible cultural heritage protection and market practice. Although based on existing textual materials and subject to limitations, this study lays a theoretical foundation for subsequent empirical research and design practice.

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