



Kharkiv State Academy of Design and Arts
Graphic design department
Visual Communication Design

Research on the Application of Cizhou Kiln Art Elements in Animation Character Design

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Contents

01	Research Background and Significance
	Cultural value of Cizhou Kiln, current research status, and research objects

02	Research Content and Methods
	Research content, design principles, technical route, and tools

03	Concept Design and Sketching Phase
	Visual translation from vessel prototypes to characters, and five-character design

04	Final Design Showcase
	Main visuals and three-view drawings of five characters, three scenes, and group poster

Research Background

Cizhou Kiln

Cizhou Kiln boasts rich vessel shapes, patterns, colors, and craft textures, providing concrete design references for 3D cartoon characters' silhouettes, costumes, and materials. Cizhou Kiln has a distinctive comprehensive artistic identity within the folk ceramic tradition of northern China. The national intangible cultural heritage project "Cizhou Kiln Firing Technique" was listed in the first batch of National Intangible Cultural Heritage Representative Projects in 2006 (Project No. VIII-10), involving local raw materials, body-forming methods, and various decorative techniques. Collection records from the Palace Museum show that besides vases, jars, basins, and bowls, Cizhou wares are especially known for porcelain pillows, whose decorations widely feature flowers, birds, animals, figure stories, and calligraphy.

Research Status

Existing research covers Cizhou Kiln art, traditional element transformation, and animation character design. How vessel forms adapt to human body structure and movement still requires analysis through specific works.



Significance of the Study

Cultural Dimension

Tracing the visual sources of Cizhou Kiln vessels and presenting their contemporary application through character stories and design works.

Design Dimension

Translating vessel shapes, patterns, colors, and material characteristics into character silhouettes, costume divisions, and character recognition cues.

Communication Dimension

Through five characters and the "Kiln Fire Millennium" scene design, discussing the visual expression and applicable boundaries of traditional crafts.



Main Research Content

01 Analyzing the shapes, patterns, colors, and decorative techniques of five vessels.

02 Adopting literature research, image analysis, comparative analysis, and design practice.

03 Producing main visuals, three-view drawings, design process diagrams, and three scene renderings for five characters.

04 Organizing character relationships through the "Kiln Fire Millennium" replication story, and presenting the character system via a group poster.

Research Objects: Five Typical Cizhou Kiln Vessels



White-ground Brown-glazed Orchid Pattern
Yuhuchun Vase



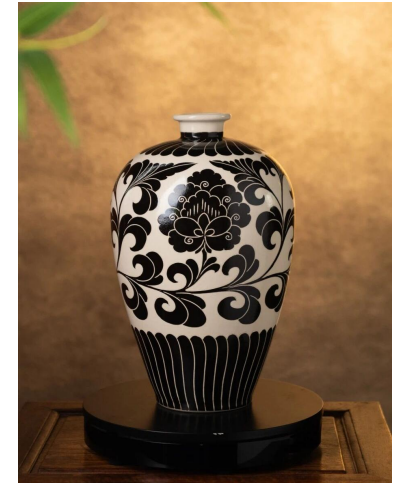
White-ground Black-painted Bamboo Pattern
Octagonal Pillow



White-ground Black-painted Dragon Pattern
Large Jar



Black-glazed Carved
Lotus
Pattern Meiping Vase



White-ground Black-carved Peony Scroll
Peony Pattern Meiping Vase

The five designated vessels correspond respectively to Lin Yue, Li Shouzhen, Yao Cheng, Xiao He, and Mr. Chen. All five vessels serve as design references, while the story centers only on the replication of the lotus-pattern Meiping vase.

Reference Case Analysis

Positive References

Comparing silhouettes, body masses, and costume layers of existing character images to analyze how character identity supports recognition and action. The vessel references for this study remain based on the designated prototypes.

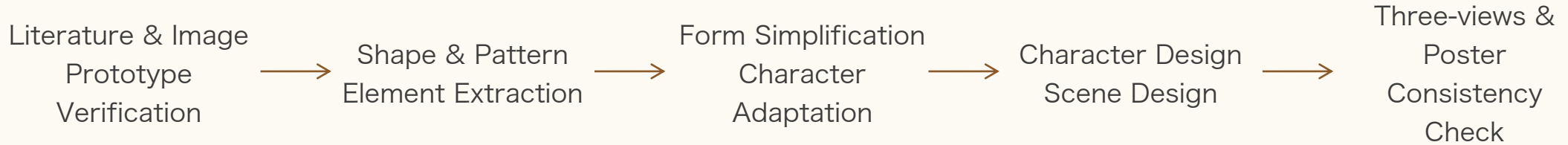


Shen Gongbao from "Ne Zha"

Shen Gongbao from "Jiang Ziya"

Technical Route

Research path: source identification, form extraction, character matching, visual reorganization, and adaptation check.
Character and static scene designs have been completed.



Vessel Shape Translation: Four-Step Path from Vessel to Character

① Function Identification

Identifying the original functional structure of the vessel and determining which features are suitable for transformation.

② Silhouette Abstraction

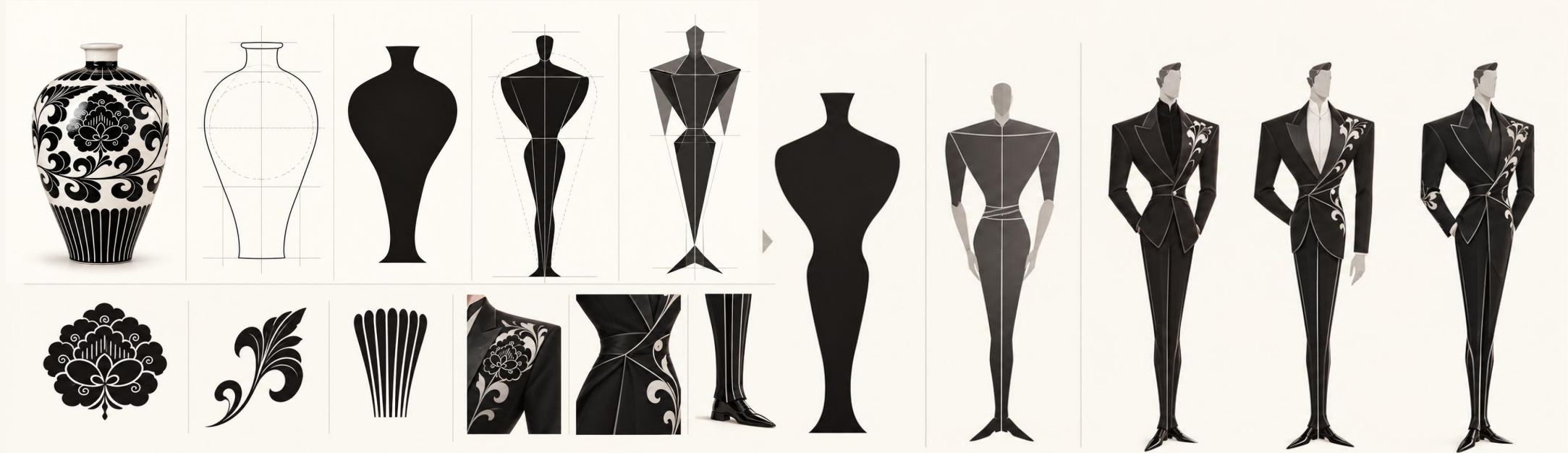
Extracting the width, turning points, and visual center of gravity of the vessel form, without mechanically copying its structure.

③ Character Adaptation

Adjusting posture, joints, and clothing so the character can perform professional actions.

④ Recognition Test

Checking readability against silhouettes, three-view drawings, and scenes to verify source connection and character identity.



Lin Yue | White-ground Brown-glazed Orchid Pattern Yuhuchun Vase

① Shape & Silhouette

The narrow neck and full belly are translated into a fitted waist and flared skirt hem.

② Pattern & Color

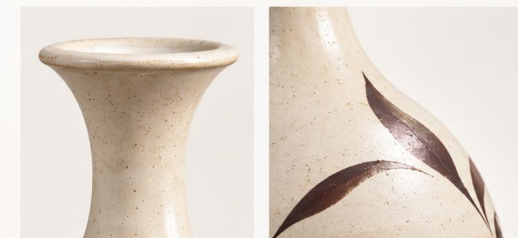
Extracting the orchid leaf direction and the lightness relationship between white ground and brown decoration.

③ Character Reconstruction

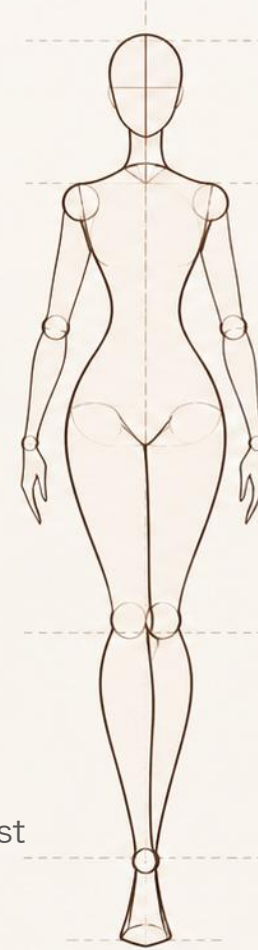
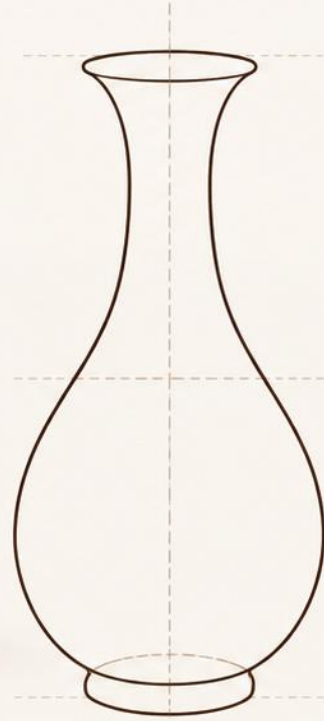
Short hair and slender build create a clear silhouette; the dress uses off-white and brown color blocking.

④ Character Adaptation

The local floral pattern still needs stronger correspondence to the orchid prototype; reference-comparison poses reflect the researcher identity.



Lin Yue: Yuhuchun Vase Outline and Orchid Element Extraction



The vase's curves correspond to the dress waist and hem.
Orchid leaves provide local decoration cues.



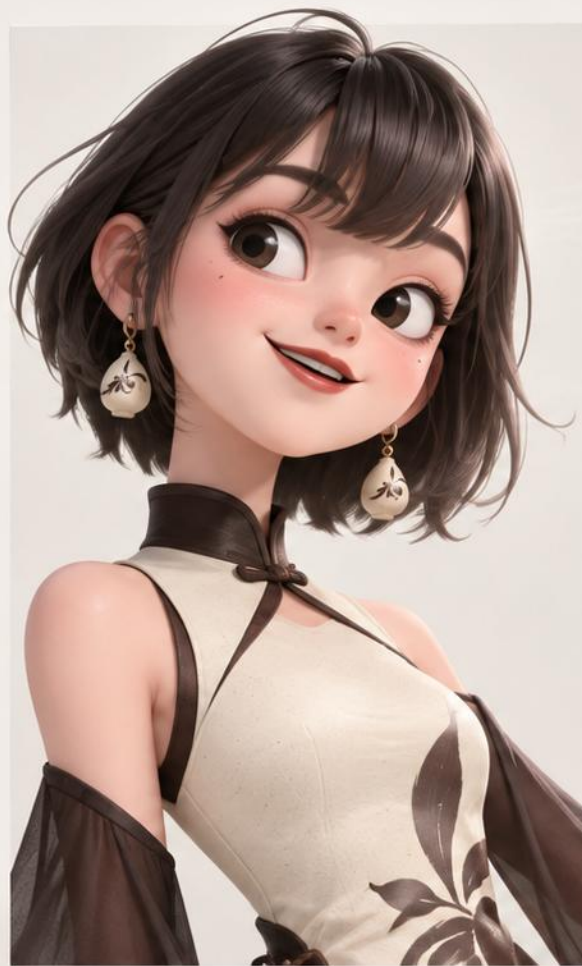
Lin Yue: Vase Curves, Dress Structure, and Pattern Derivation



Lin Yue: Main Visual, Three-View Drawings, and Static Poses



Lin Yue: Costume Details and Character Expression



Li Shouzhen | White-ground Black-painted Bamboo Pattern

Octagonal Pillow

① Shape & Silhouette

The octagonal pillow's top surface and cut corners inspire broad-shouldered massing and apron divisions.

② Pattern & Color

The diagonal rhythm of bamboo leaves is applied to the shoulder-collar and top areas.

③ Character Reconstruction

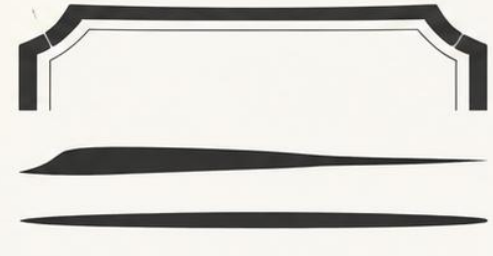
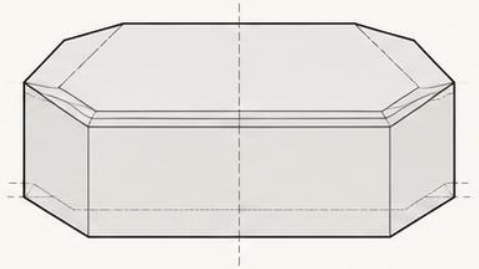
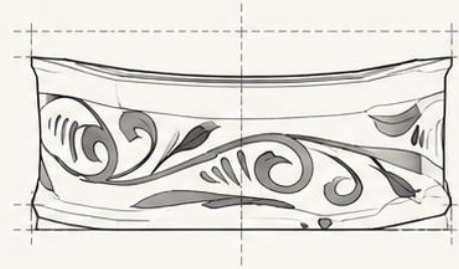
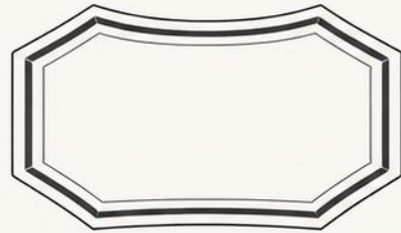
Off-white work shirt and dark apron create layers, preserving visual space for hand operations.

④ Character Adaptation

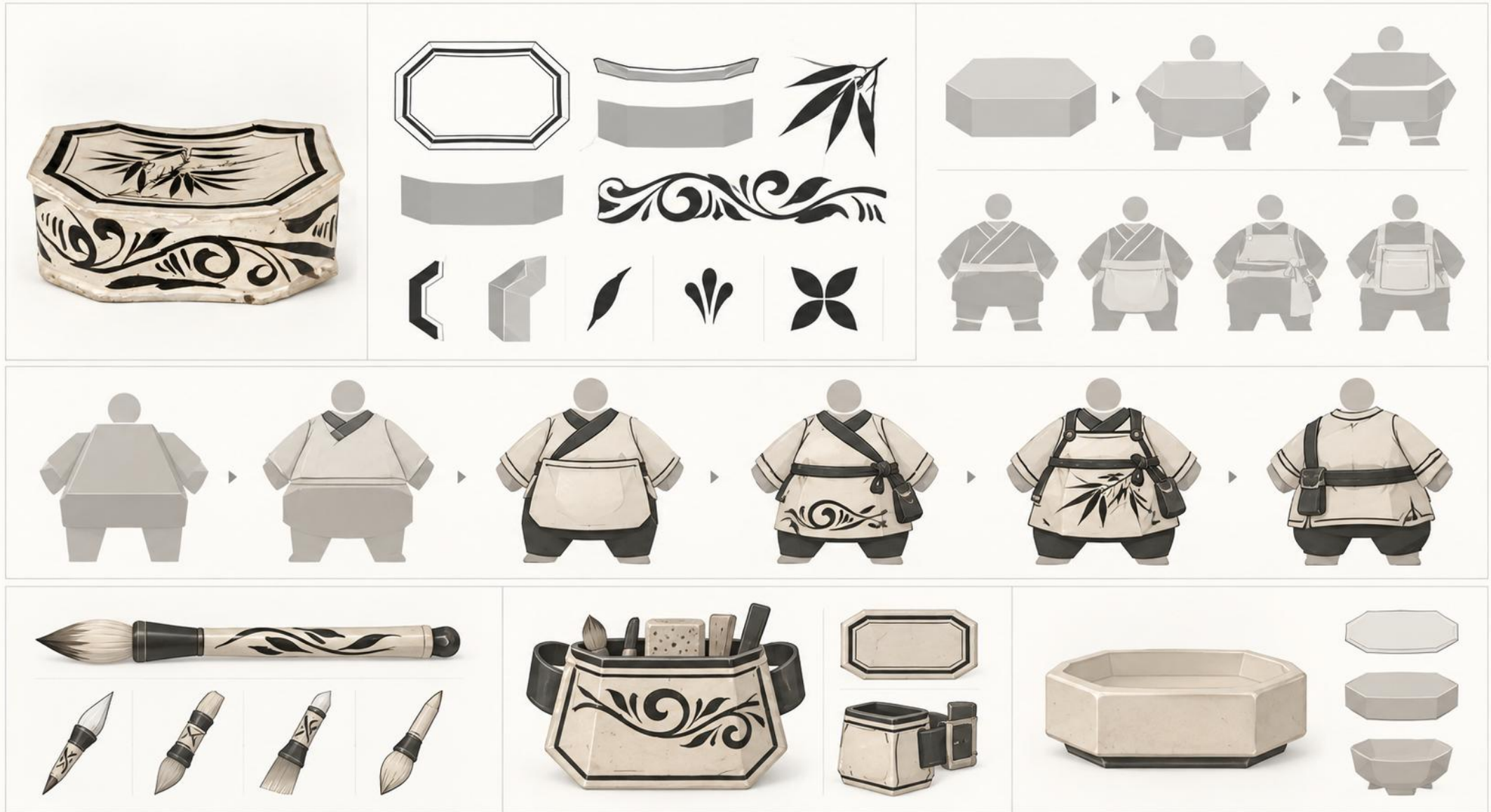
A tool pouch and stable posture indicate the pottery craftsman identity. The character appears only in Yao Cheng's dream.



Li Shouzhen: Octagonal Pillow Structure and Bamboo Leaf Pattern Extraction



Li Shouzhen: Craftsman Outfit and Apron Structure Derivation



Li Shouzhen: Main Visual, Working Poses, and Costume Details



Yao Cheng | White-ground Black-painted Dragon Pattern Large Jar

① Shape & Silhouette

The jar's full shoulders and belly translate to a rounded body mass and low center of gravity.

② Pattern & Color

The dragon's continuous winding movement is extracted and placed on the off-white coat sleeves and other areas.

③ Character Reconstruction

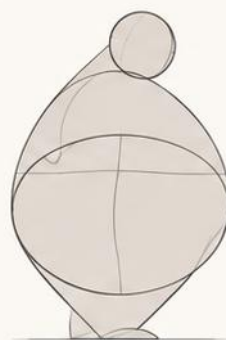
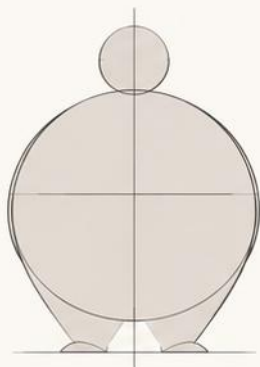
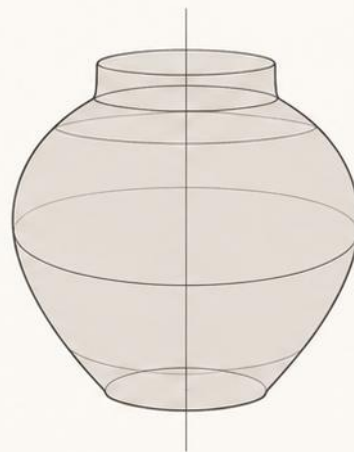
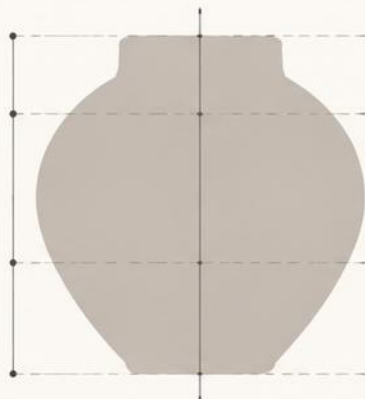
Gray-brown inner layer, light scarf, and crossbody bag form the veteran craftsman image.

④ Character Adaptation

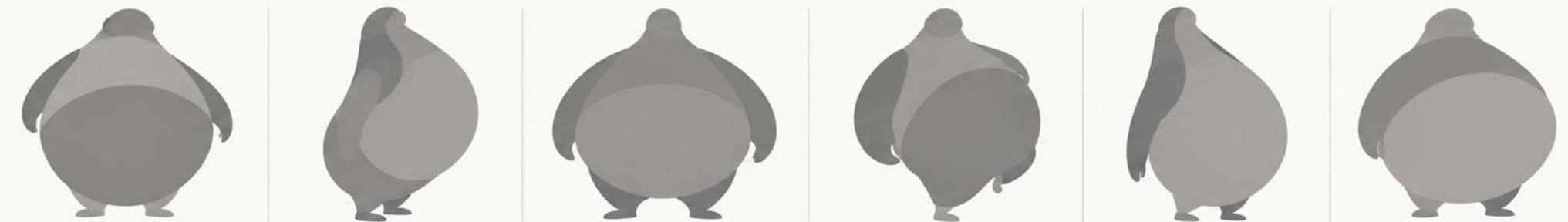
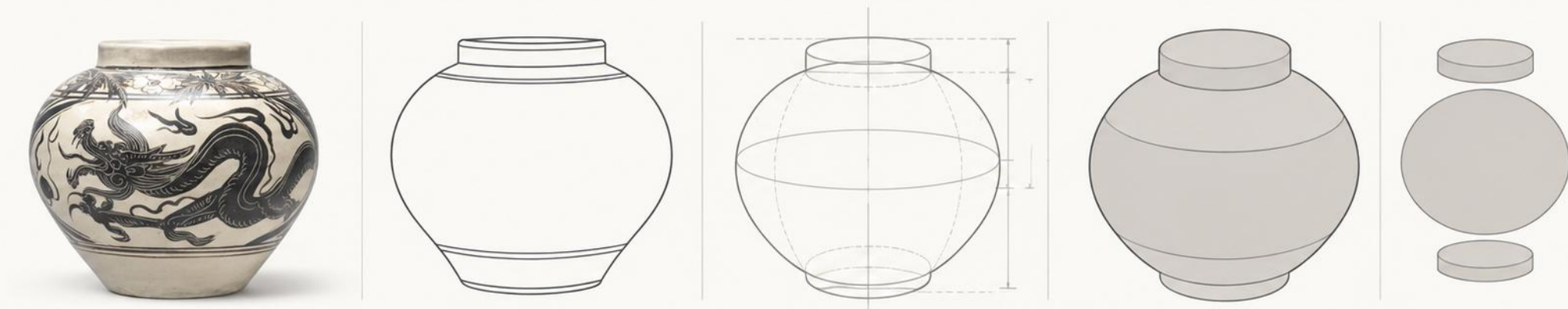
Responsible for Meiping vase replication; accessories are arranged to ensure arm and pottery-wheel movement space.



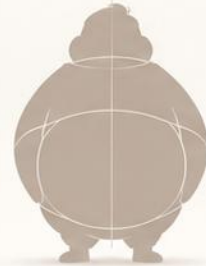
Yao Cheng: Dragon-pattern Jar Outline and Body Mass Derivation



Yao Cheng: Dragon Pattern Extraction and Character Silhouette Comparison



Yao Cheng: Character Structure, Three-View Drawings, and Accessory Design



Yao Cheng: Main Visual, Static Actions, and Prop Details



Yao Cheng: Sleeve Dragon Pattern and Facial Details



Xiao He | Black-glazed Carved Lotus Pattern Meiping Vase

① Shape & Silhouette

The Meiping's flared shoulder and narrow waist inspire a light, vertical character silhouette.

② Pattern & Color

Dark glaze with light lotus patterns translates to gold-brown line patterns on a black jacket.

③ Character Reconstruction

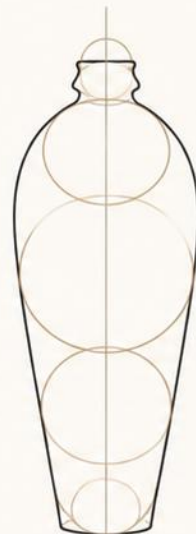
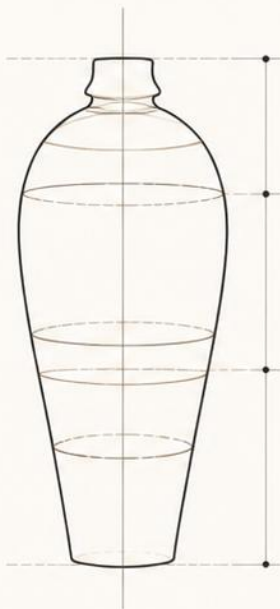
Short jacket, backpack, and sneakers reinforce the young apprentice identity.

④ Character Adaptation

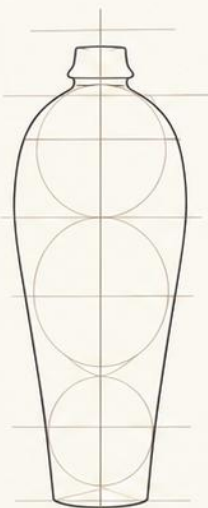
Lotus patterns are concentrated on the chest-shoulder and sleeves; clipboard and working poses serve the learning task.



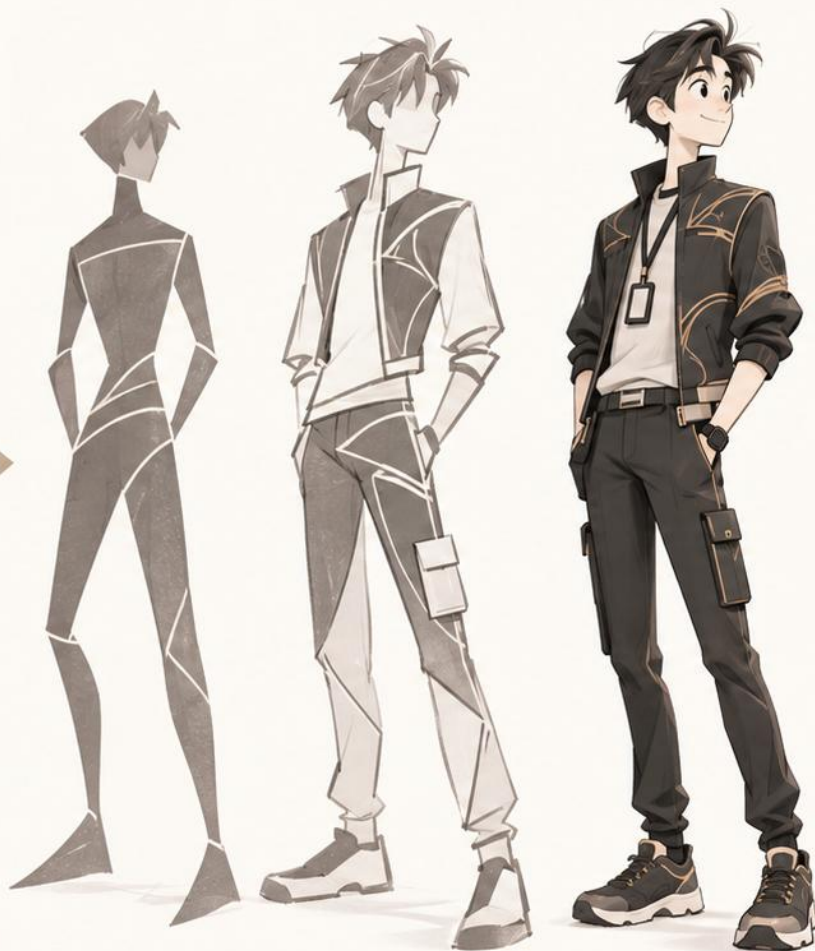
Xiao He: Meiping Vase Outline and Lotus Pattern Extraction



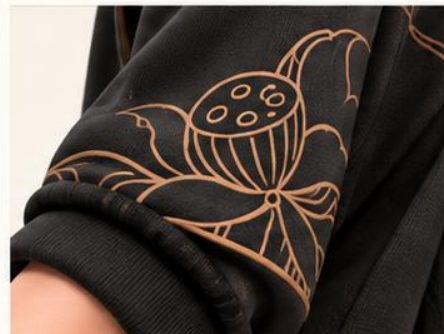
Xiao He: Short Jacket, Backpack, and Pose Derivation



Xiao He: Meiping Outline and Youth Character Scheme Derivation



Xiao He: Costume Details, Recording Props, and Static Actions



Mr. Chen | White-ground Black-carved Peony Scroll Pattern Meiping Vase

① Shape & Silhouette

The Meiping's flared shoulder and waist-belly transition reference the suit's shoulder line and fitted silhouette.

② Pattern & Color

Extracting the main peony flower and scrolling vine structure, reconstructed as white patterns on black.

③ Character Reconstruction

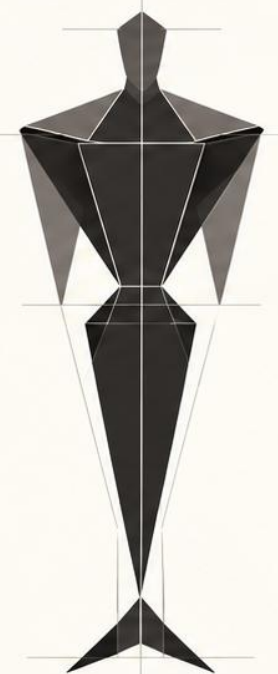
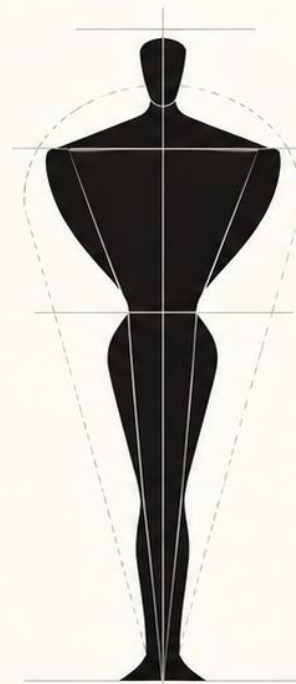
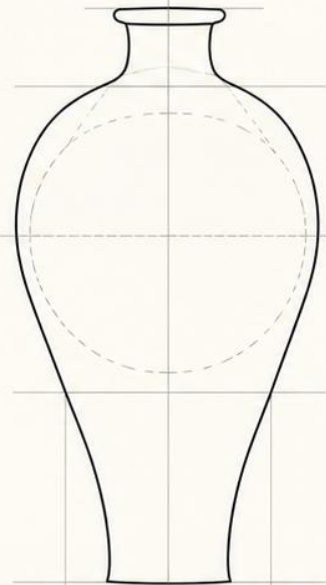
Patterns are concentrated on the suit's chest-shoulder and front placket, preserving clear panel hierarchy.

④ Character Adaptation

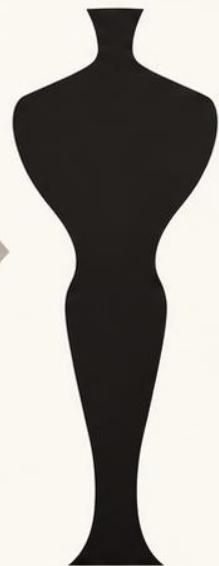
As the client commissioning the Meiping replication, identity is conveyed through reference discussions and sample observation.



Mr. Chen: Peony-pattern Meiping Outline and Pattern Extraction



Mr. Chen: Meiping Form and Suit Silhouette Derivation



Mr. Chen: Suit Pattern, Accessories, and Character Details



Mr. Chen: Main Visual, Front/Side/Back Views, and Static Expressions



Five-Character Overall Design Comparison

Character Differentiation Design

Lin Yue presents curves through short hair and a dress; Li Shouzhen conveys craftsman identity through an apron and broad shoulders; Yao Cheng is distinguished as a modern veteran by his rounded, low-center build; Xiao He's short jacket and backpack, and Mr. Chen's fitted suit form distinct silhouettes.



Scene Design: Modern Cizhou Kiln Heritage Base Indoor Workshop

Real Production Space

The modern workshop handles commissions, trials, and reference comparison. A central workbench and pottery wheel organize character operations; ware racks and samples indicate different production stages.



Scene Design: Modern Outdoor Leisure Tea Courtyard

Real Rest Space

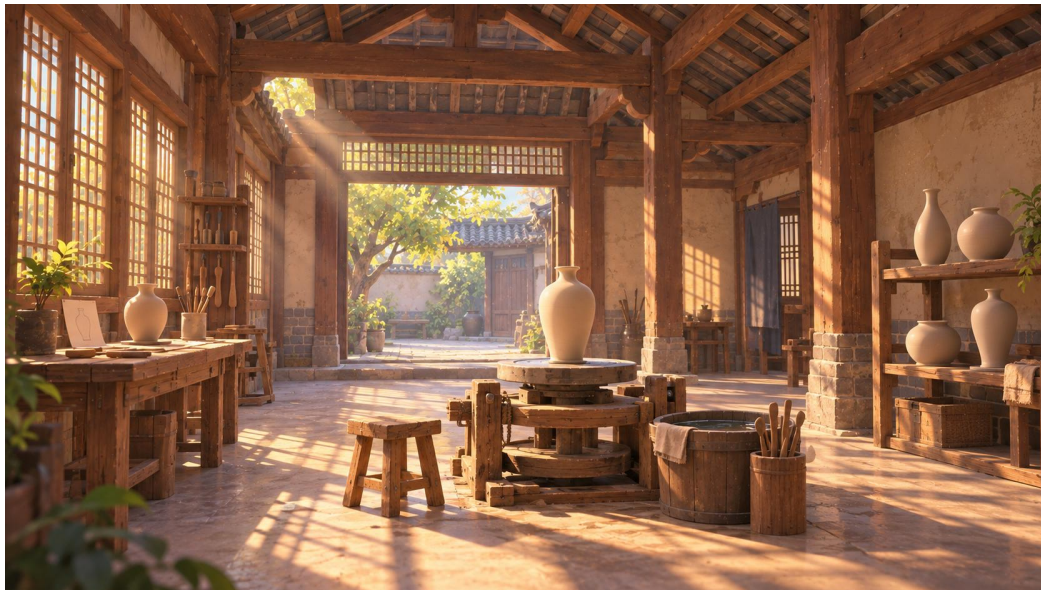
The tea courtyard serves for post-work conversation and emotional closure. Off-white architecture, wooden pergolas, and tea tables continue the modern spatial language. Li Shouzhen does not appear in real-world scenes.



Scene Design: Ancient Dream Pottery Workshop

Dream Observation Space

This is the ancient pottery workshop in Yao Cheng's dream. Li Shouzhen demonstrates working experience through the pottery-making process; the dream does not directly provide verifiable ancient formulas.



Main Conclusions

Research Conclusions

This study focuses on the application of Cizhou Kiln art elements in animation character design, establishing a workflow of "source identification → form extraction → character matching → visual reorganization → consistency check." Vessel shapes provide width, center of gravity, and silhouette rhythm; patterns provide direction and visual hierarchy; colors form the common tone of the character group; craft differences help distinguish fabric, accessories, and ceramic props. Cultural meaning enters the narrative through characters' actions when facing production challenges, rather than merely serving as symbolic pattern decoration.

"Kiln Fire Millennium" uses a replication story as the thread, connecting modern production, dream observation, and real-world retries. The five characters' division of labor shows that cultural transmission includes experience, recording, comparison, and collaboration. The workshop, dream space, and tea courtyard organize tasks and emotions respectively. Group portrait design further demonstrates that character-group unity requires preserving differences in age, body type, and visual weight. Current conclusions are limited to design process and scheme analysis, and do not infer untested communication effects.

Mr. Chen: Main Visual and Front/Side/Back Three-View Drawings

Modern businessman, commissioning Yao Cheng to replicate the Meiping.

Peony-pattern Meiping inspires structured shoulders and fitted waist. Three-view drawings verify suit pattern continuity.



Lin Yue: Main Visual and Front/Side/Back Three-View Drawings

Modern ceramic
art researcher,
responsible for
pattern
comparison.

Yuhuchun vase
curves are used
for the dress
waist.

Three-view
drawings verify
skirt hem and
panel structure.



Li Shouzhen: Main Visual and Front/Side/Back Three-View Drawings

Ancient pottery
craftsman from
the dream world.
Octagonal pillow
cut corners
inspire broad
shoulders and
apron.

Three-view
drawings verify
apron straps and
tool pouch.



Xiao He: Main Visual and Front/Side/Back Three-View Drawings

Modern young ceramic apprentice, participating in recording and operations.

Lotus-pattern Meiping inspires dark outfit with light patterns. Three-view drawings verify backpack and panel line patterns.



Yao Cheng: Main Visual and Front/Side/Back Three-View Drawings

Modern ceramic master craftsman, leading the replication task.

Dragon-pattern jar inspires rounded posture and low center of gravity. Three-view drawings verify scarf, shoulder bag, and dragon patterns.

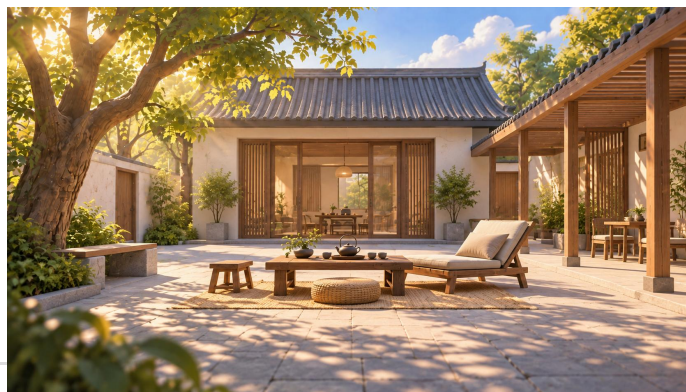


Three Scene Designs



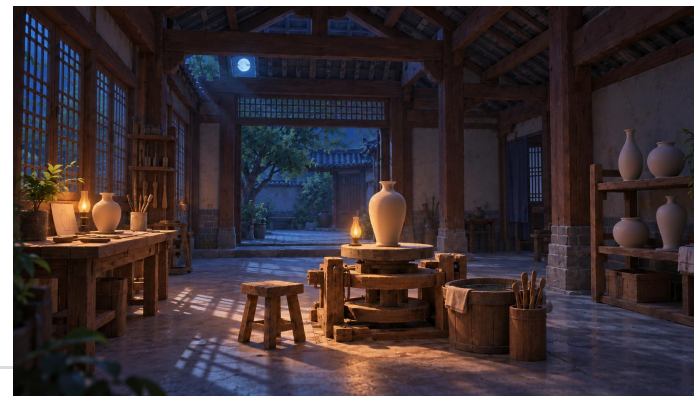
Modern Indoor Workshop

Real Production: Yao Cheng carries out Meiping replication in the workshop; Lin Yue and Xiao He assist with comparison and recording.



Modern Outdoor Tea Courtyard

Real Rest Space: Post-work conversation and emotional closure; no Meiping display platform is set.



Ancient Dream Pottery Workshop

Dream Observation: Li Shouzhen demonstrates pottery-making experience; the ancient space exists only in Yao Cheng's dream.

Character Group Poster Final Work

Horizontal Group Portrait Composition

Two horizontal group portrait designs showcase the five characters' differences in body type, age, and costume. Character identities and prototype associations remain consistent across different compositions.



Character Group Poster Final

Composition Logic

All five characters appear once: Mr. Chen and Li Shouzhen are in the back, Xiao He is centered in front, Lin Yue is on the left, and Yao Cheng is on the front right. This image is for promotional display and does not mean dream characters enter the real-world storyline.



Thank You for Your Attention

We welcome your comments and corrections