

Supplementary Information

Supplementary Table 1. Participant demographics (N = 57).

Characteristic	Category	Number of Participants	Percentage (%)
Gender	Male	30	52.6
	Female	27	47.4
Age	18-25	22	38.6
	26-35	20	35.1
	36-50	15	26.3
	High School	8	14.0
Education	Bachelor's	18	31.6
	Master's or above	31	54.4
Nationality	Chinese	57	100
Background in Chinese painting or fine arts	Yes	0	0
	No	57	100

Supplementary Table 2. Thematic analysis of user open-ended comments.

Selective Code	Axial Code	Open Codes	Representative Quotes
Perceived Visual Quality	Clarity	Clear image, rich details	"The lines of the mountains and rivers are very clear, and the details are well depicted."
	Composition Balance	Well-composed, hierarchical	"The overall layout is coherent and comfortable to view."
	Visual Artifacts	Blurred, distorted, unnatural edges	"Some parts of the tree branches are blurred and appear unnatural."
Semantic Consistency	Content Completeness	Complete depiction of mountains, water, pines, pavilions	"All the landscape elements are shown, matching the prompt."
	Content Deviation	Missing or misaligned elements	"The pavilion's position seems strange and not fully aligned with the prompt."
Style Fidelity	Ink Variation	Rich tonal layers, appropriate shading	"The ink layers are rich, reflecting the charm of Chinese ink painting."
	Use of Space	Clear spatial hierarchy	"The balance between blank space and solids makes the image feel spacious and transparent."
	Brushwork Features	Flying white, texture strokes, patterns	"The mountain textures use traditional brush strokes, and the ink effect is well-executed."
AI Capital	Technical Limitations	Details not natural enough	"The water flow effect is not realistic, probably limited by AI generation."
	AI Capability Differences	Significant variations between models	"Different models perform quite differently, likely related to AI technical capabilities."

Supplementary Table 3. Thematic analysis of expert evaluations.

Selective Code	Axial Code	Open Codes	Representative Quotes
Brushwork Expressiveness	Ink gradation	Ink tonal variation, appropriate contrast	"The gradation of ink tones is distinct, resembling authentic ink-wash effects."
	Traditional techniques	<i>Cun</i> strokes, dry-brush, textural rendering	"The texture strokes of the rocks are expressive, reminiscent of traditional craftsmanship."
	Detail flaws	Uniform textures, overly smooth lines	"Some tree branches appear too uniform, lacking the variability of hand-drawn brushwork."
Composition and Spatial Perspective	Spatial perspective	Use of the <i>three distances</i> method, sense of depth	"The composition shows depth and perspective, consistent with traditional painting principles."
	Balance of layout	Hierarchical relations, harmony of elements	"The pavilion and the mountain are proportionally balanced, with neither overpowering the other."
	Insufficient composition	Flatness, lack of spatial layering	"Certain parts of the composition lack depth, making the image appear static."
Ink Aesthetic and Artistic Conception	Atmosphere	Tranquility, poetic quality	"The overall mood is ethereal, carrying the poetic charm of traditional landscape painting."
	Lack of vitality	Flat mood, insufficient liveliness	"Although the techniques are accurate, the work is missing some of the lively spirit."