

Figure 1: The ACE’s generated visualization of image segmentation, depth estimation, human-pose estimation, image mosaic, and image grayscale in low-level visual analysis.

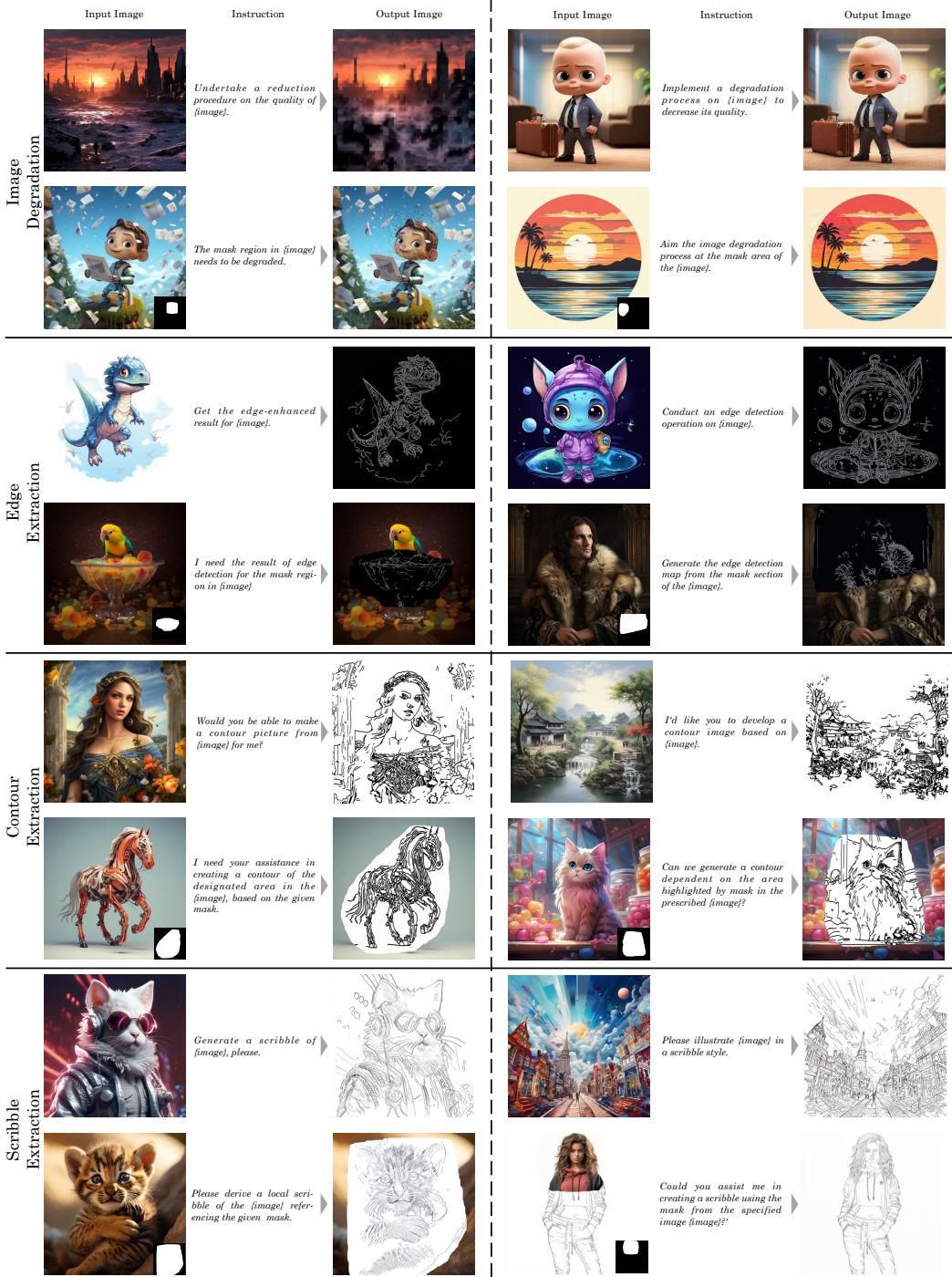


Figure 2: The ACE’s generated visualization of image degradation, edge extraction, contour extraction, and scribble extraction in low-level visual analysis.

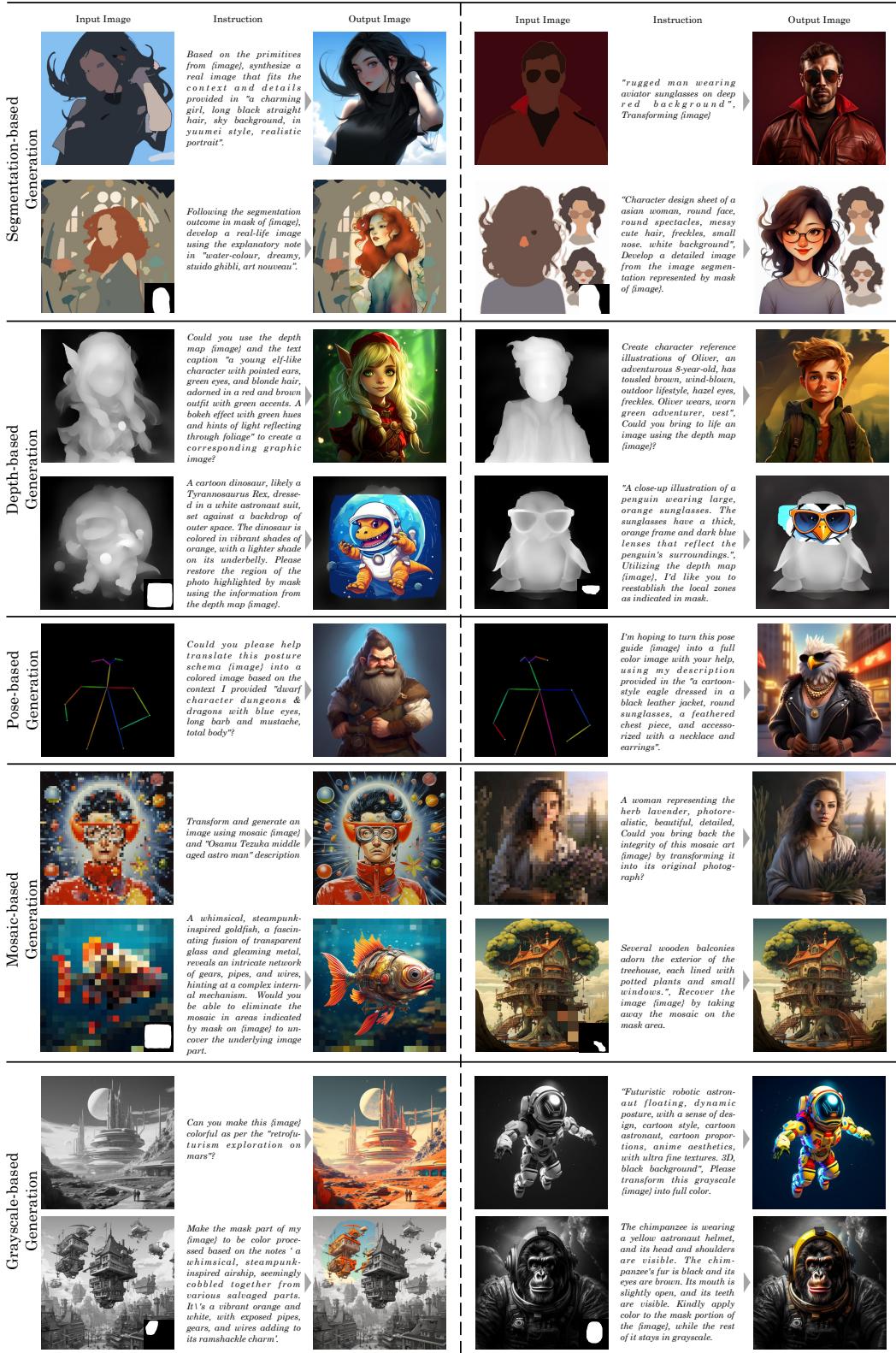


Figure 3: The ACE’s generated visualization of segmentation-based, depth-based, pose-based, mosaic-based, and grayscale-based generation in controllable generation.

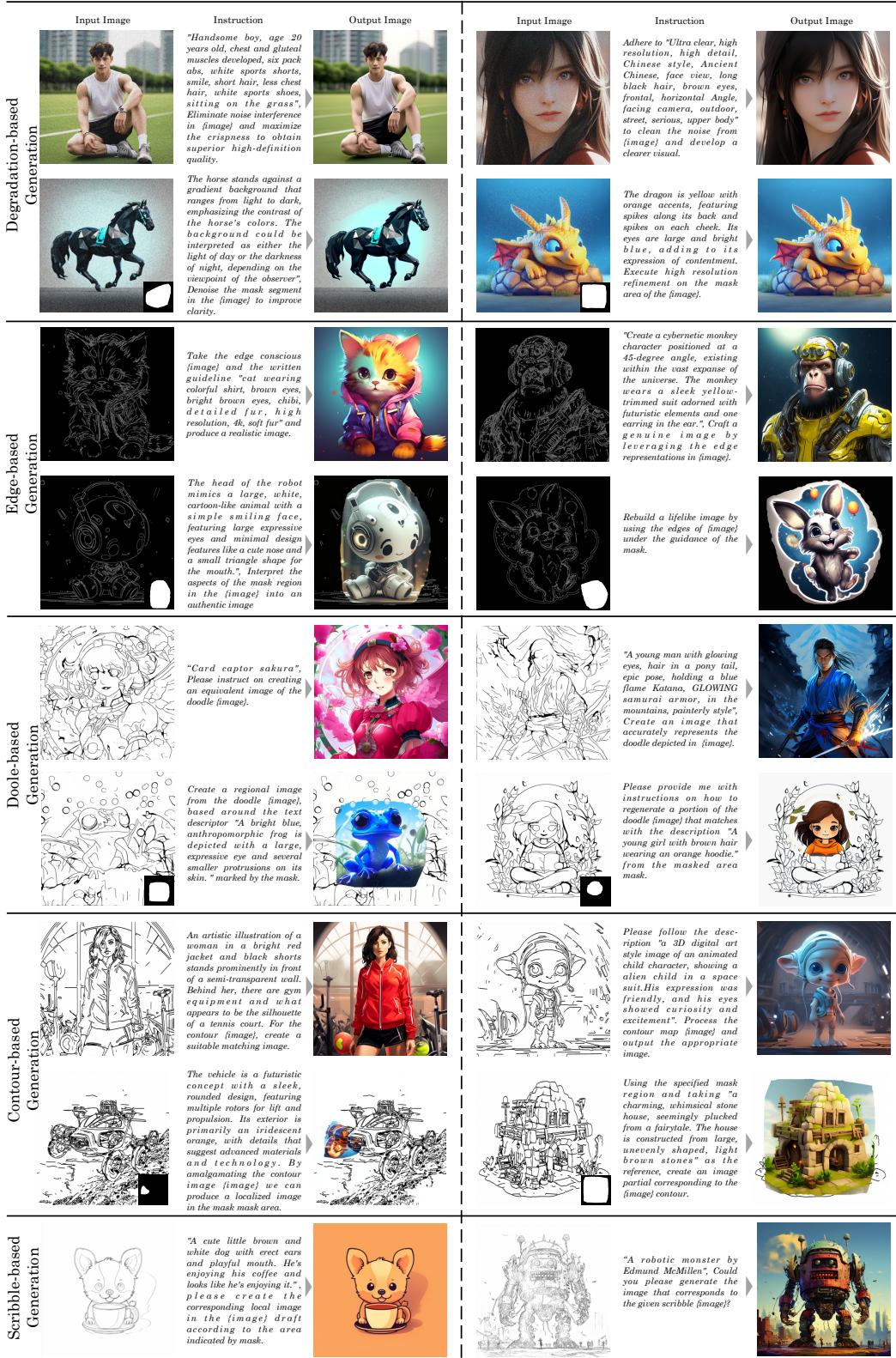


Figure 4: The ACE’s generated visualization of degradation-based, edge-based, doodle-based, contour-based, and scribble-based generation in controllable generation.

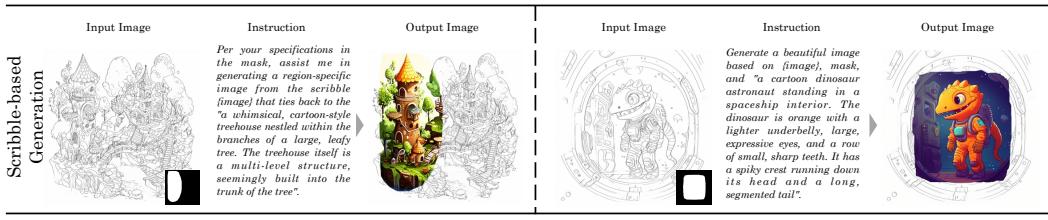


Figure 5: The ACE’s generated visualization in scribble-based controllable generation.

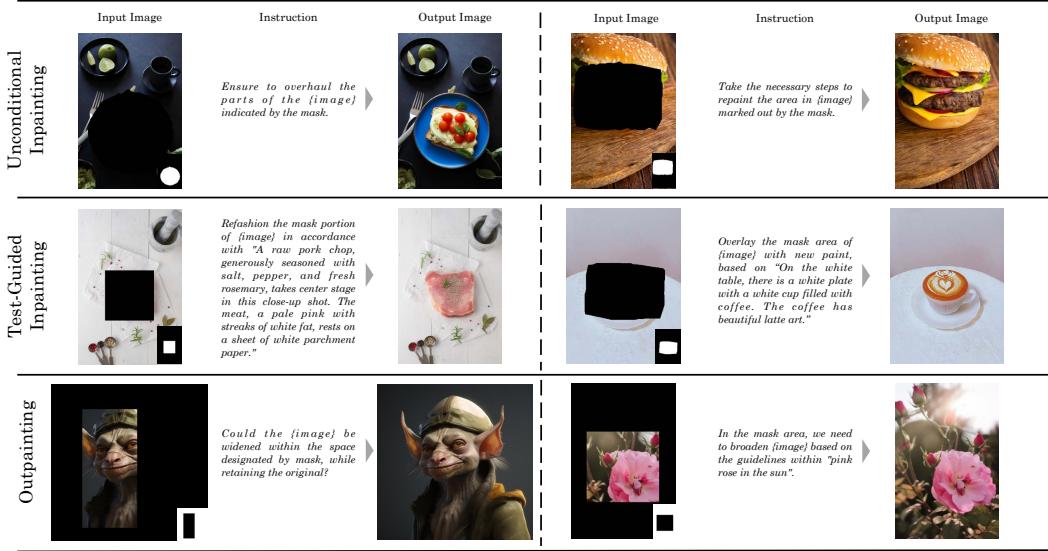


Figure 6: The ACE’s generated visualization of repainting.

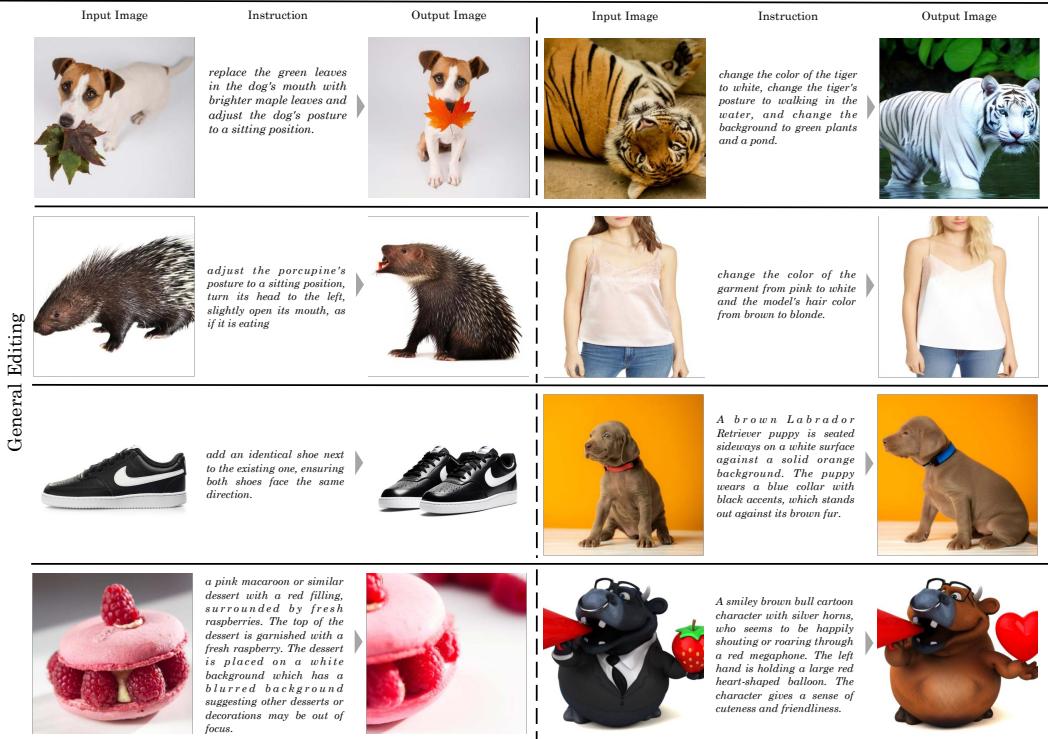


Figure 7: The ACE’s generated visualization of general editing in semantic editing.

Input Image	Instruction	Output Image	Input Image	Instruction	Output Image
	Maintain the same face in [image], you need to invert the background to a clear indoor, shaded setting, using bright lights and increasing contrast. The clothing can be adjusted back to a large ruffled white garment or jacket, maintaining its original style.			Restyle the characters from [image] according to "the woman has straight, light brown hair with a side part, which is swept away from her face. She is wearing a white top with cut-out details, and her makeup appears more natural," and make sure their facial attributes remain the same.	
	You need to change the background color from pink elements and stars to a step pattern of a blue sky background with a repeating pattern. Remove the shadows and restore the soft glow atmosphere. Also, adjust the background color back to blue. The faces in the two images are the same, usually changing their pose.			Modify the [image] as per the "her hair flowing more dynamically, suggesting movement, and the background has more defined greenery, creating a natural and serene setting. The light is more diffuse and the color tones are rich, which adds to the realistic feel of the scene," while preserving facial identity.	
	Replace the long-sleeved blouse with a high neckline featuring a pattern of red chains against a pale background with a sleeveless top with lace detailing at the straps. Additionally, the large hoop earrings and textured clutch purse should be replaced with a broad smile.			Correspond the composition of [image] with another style taking into account the "The girl has a light blue, long-sleeved shirt with a floral pattern, which seems comfortable and casual. The setting is outdoors, with greenery softly in the background," but keeping the facial aspects constant.	
	Decrease light on the well-lit side to create appropriate shadows. Conceal some parts of the shoulder and arm. Also, adjust the stripe pattern on the collar edge. The faces in the two images are the same, usually changing their pose.			Keep the same facial feature in [image], change the woman's clothing from a white jacket to a white turtleneck sweater and adjust her posture so that she is pulling the collar of the sweater with both hands. Other aspects, such as background, hairstyle, facial expression, etc., remain unchanged.	
	Keep the facial features of the character in [image], based on "change the background be solid pink. Turn the character's shirt black, change their hairstyle to short hair, and make their gaze more determined."			Keep the same facial feature in [image], transform the girl's outfit into a formal dress with suspenders, spread her hair out, and hold a large bouquet of red roses in her hand. The overall lighting becomes dim, creating a sense of atmosphere.	
	Transform the faces of the character in [image] to capture genuine smiles.			Adjust the expressions of the character in [image] to reflect natural, friendly smiles.	
	The person appears to be wearing more subtle makeup to enhance his facial features. The skin appears smoother, with possibly a touch of foundation to even out the complexion. A light application of blush may have been used to give a healthy glow to the cheeks.			The person in [image] is wearing makeup. The makeup enhances the lips, making them appear fuller and more vibrant. The eyes are more defined, shaped with color added, while the skin looks smoother and perhaps given a lighter tone from the makeup application.	
	Add natural beards to the characters in the [image].			Generate natural facial hair for the character in the [image].	
	The character's hair color appears as vibrant pink, with the same styled bun and loose tendrils framing her face. The character continues to wear the same clothes and accessories. The makeup remains largely unchanged, focusing attention on her facial features.			The woman's hair has transformed to a deep purple hue, with a more pronounced wave similar to that in the left image. The length and style appear to be the same as the left image. The overall effect is still soft and ethereal, but distinctly different in the hair color.	

Figure 8: The ACE's generated visualization of facial editing in semantic editing.

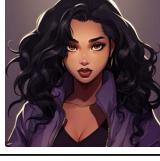
Schools of Painting	Input Image 	Instruction Could you please make [image] an Impressionism painting.	Output Image 
Animation Studios	Input Image 	Instruction Create a new image of Walt Disney Animation referring to [image].	Output Image 
Paper Art	Input Image 	Instruction Change the style of [image] to paper cut craft.	Output Image 
Drawing	Input Image 	Instruction Transform [image] into pencil painting.	Output Image 
Materials	Input Image 	Instruction Make [image] a picture made of stained glass.	Output Image 
Special Effects	Input Image 	Instruction Change [image] to match Low poly style.	Output Image 
Fabrics	Input Image 	Instruction Re-style [image] to risograph ISO format.	Output Image 
3D	Input Image 	Instruction Could you please make [image] 3D cartoon.	Output Image 

Figure 9: The ACE’s generated visualization of style editing in semantic editing.

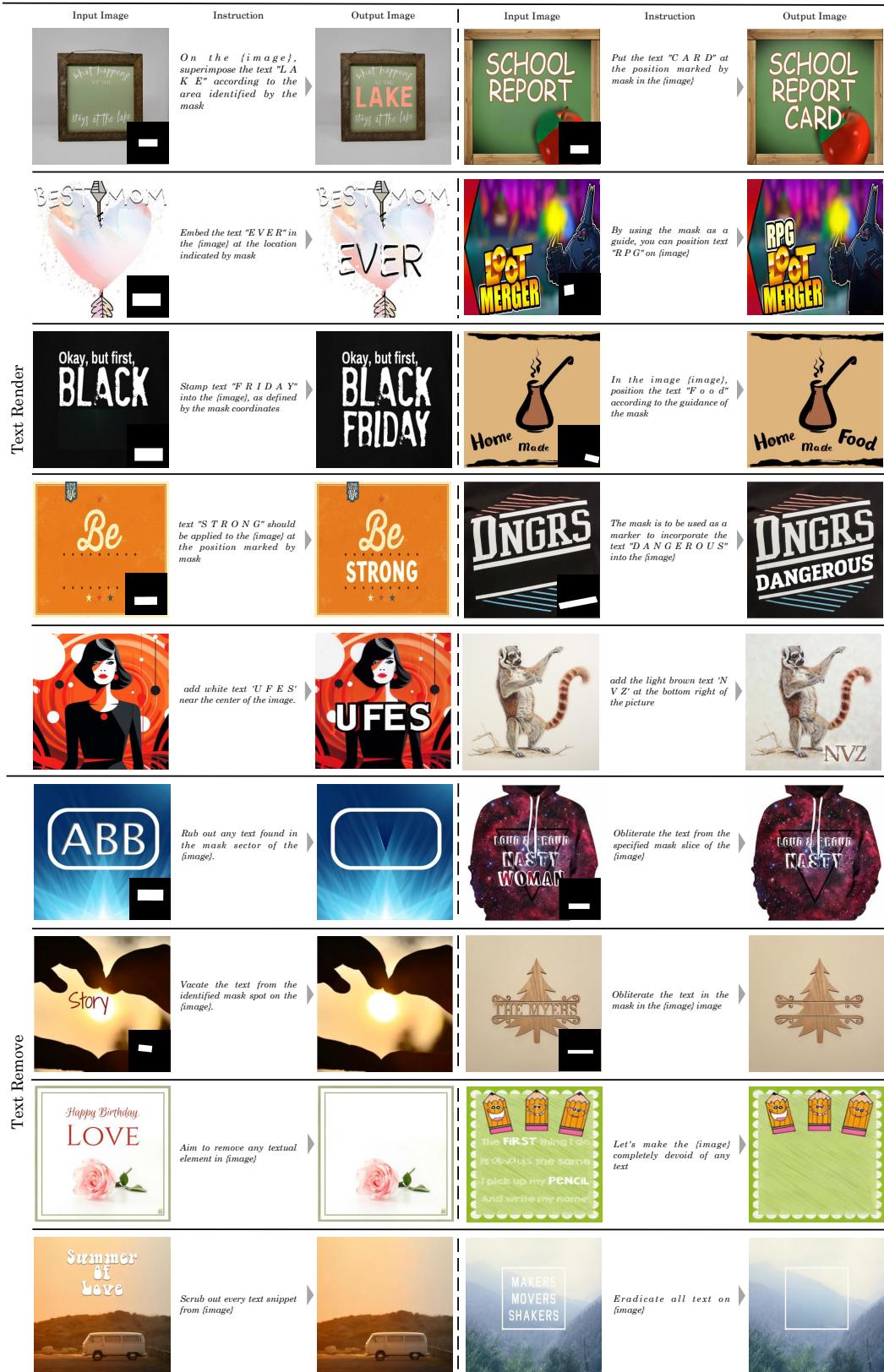


Figure 10: The ACE’s generated visualization of text editing in element editing.

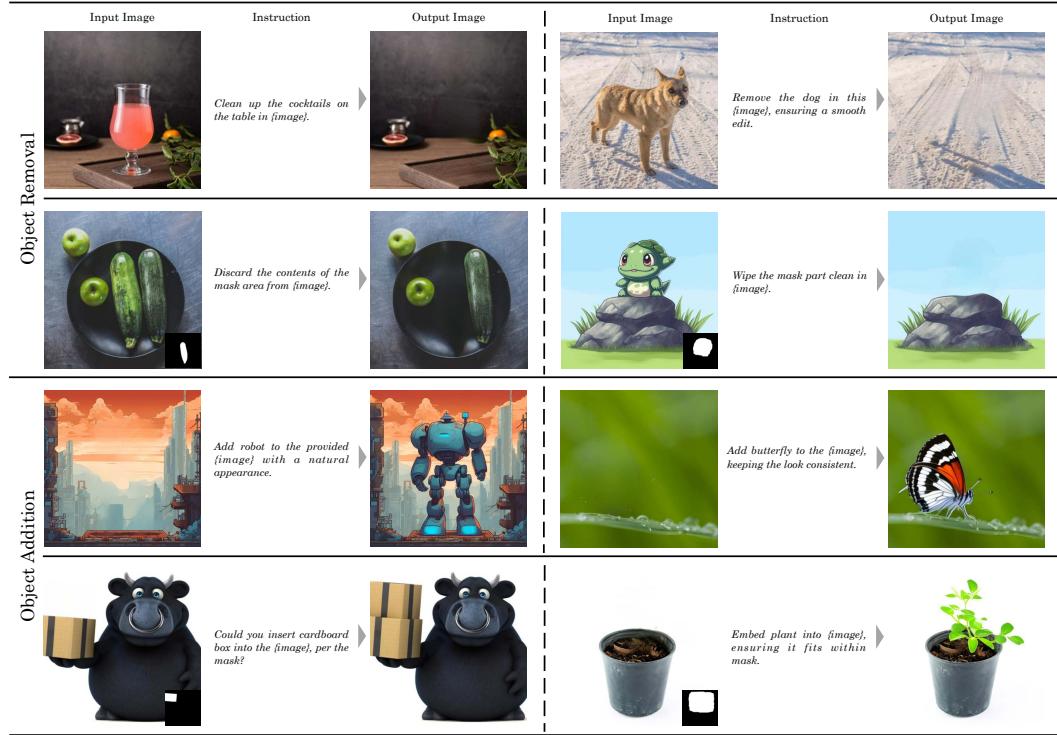


Figure 11: The ACE’s generated visualization of object editing in element editing.

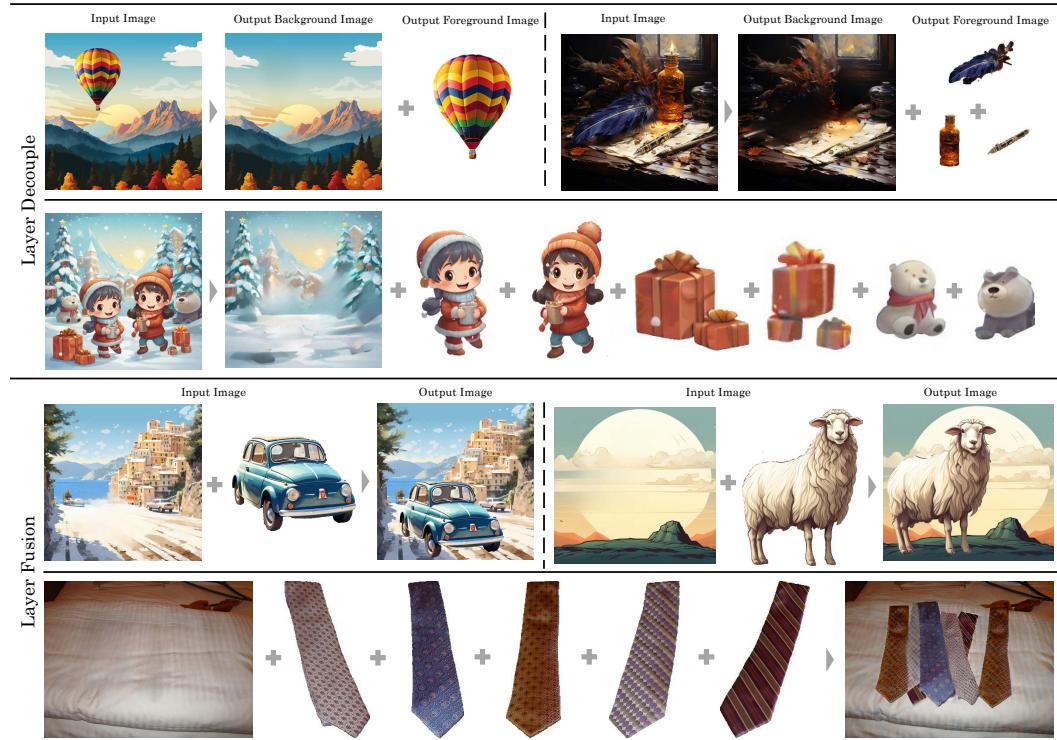


Figure 12: The ACE’s generated visualization of layer decouple and layer fusion in layer editing.



Figure 13: The ACE’s generated visualization of multi-reference generation and reference-guided editing.

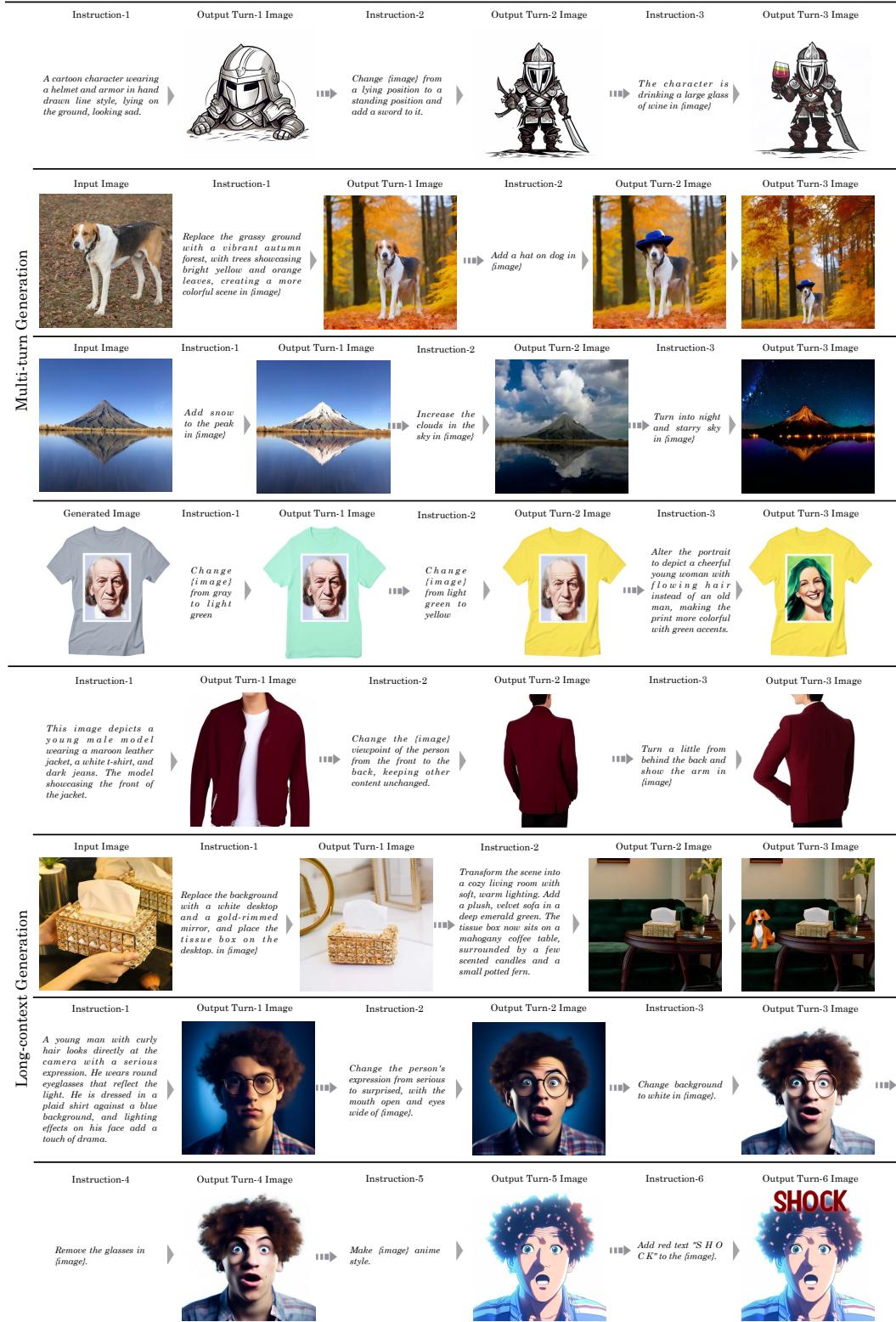


Figure 14: The ACE’s generated visualization of multi-turn and long-context generation.