Supplemental Document for "Sketch2Scene: Sketch-based Co-retrieval and Co-placement of 3D Models"
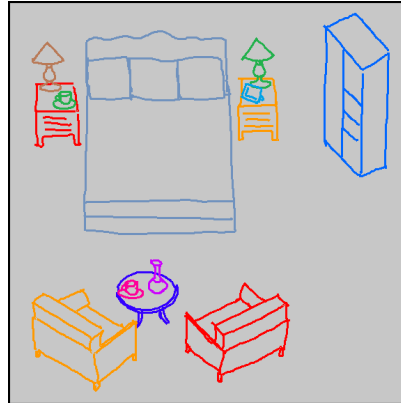
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This supplemental document contains two parts.

7 Sketched Scenes for Pilot Study. For each of them we also include an artist-created 3D scene, three results automatically generated by our technique, and user study statistics (i.e., the percentage in favor of our technique), as shown in Figures 1-7. The ground and walls (as well as the painting on the wall in Figure 3) were manually added.

24 Sketched Scenes for Parameter Analysis. Each of them consists of 2 to 20 sketches, as shown in Figures 8-9.

input sketches

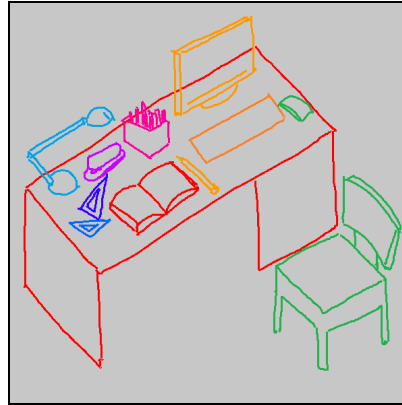generated scene 1

generated scene 2

generated scene 3

artist-created scene

Figure 1: *Pilot study example 1. 12 of 32 participants (37.5%) prefer our generated scenes.*

input sketches

generated scene 1
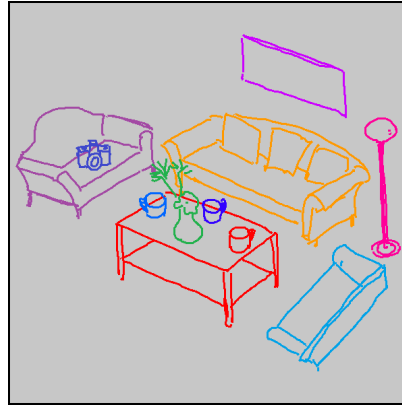
generated scene 2

generated scene 3

artist-created scene

Figure 2: *Pilot study example 2. 18 of 32 participants (56.2%) prefer our generated scenes.*

input sketches

generated scene 1

generated scene 2

generated scene 3

artist-created scene

Figure 3: *Pilot study example 3. 21 of 32 participants (65.6%) prefer our generated scenes.*
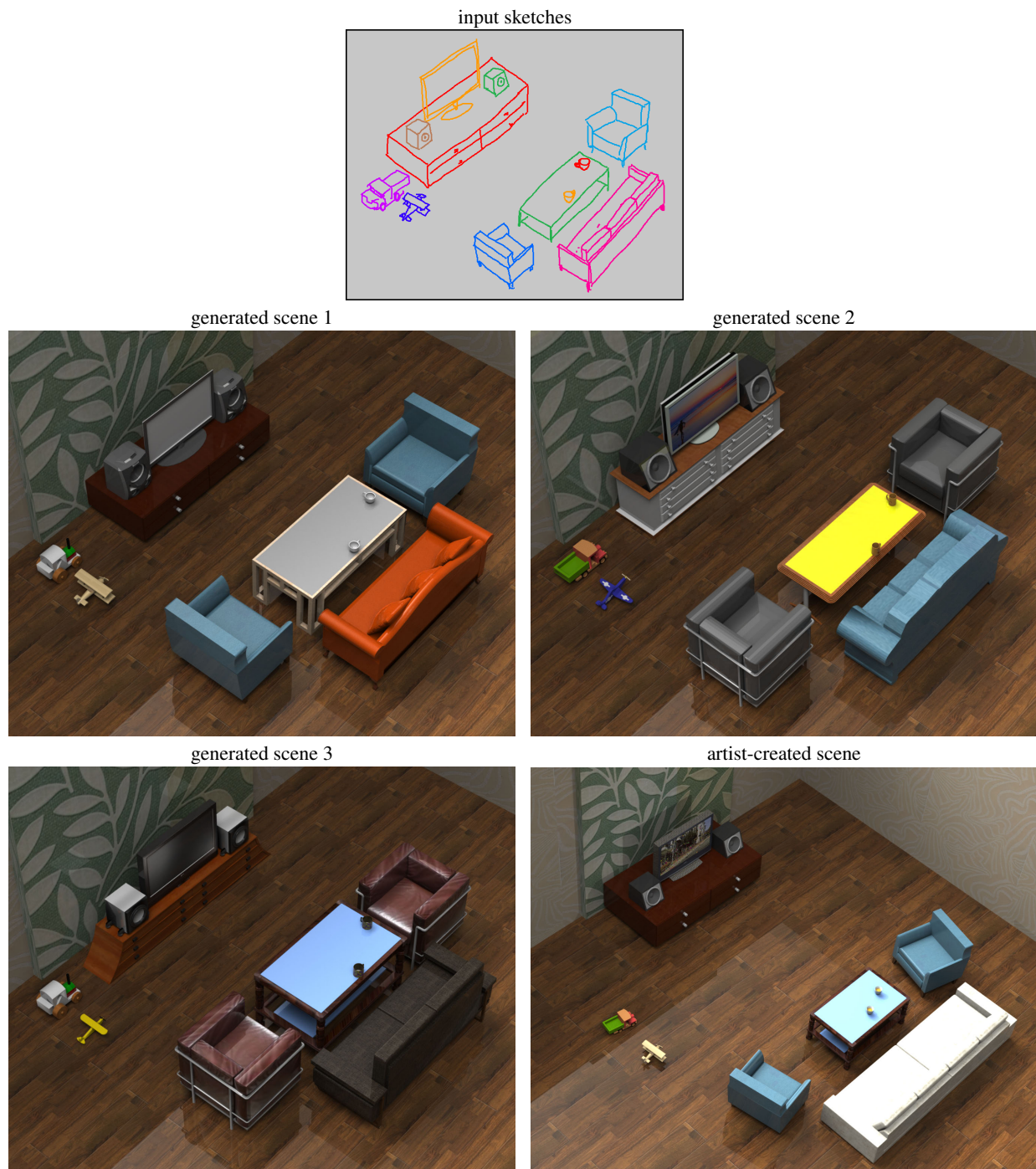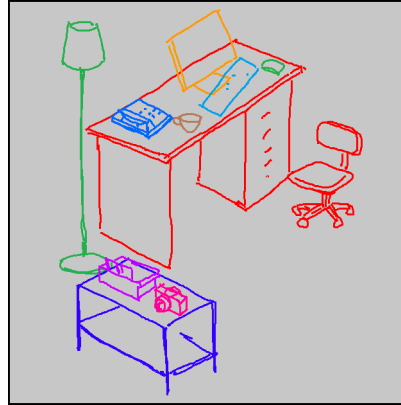
input sketches

generated scene 1

generated scene 2

generated scene 3

artist-created scene

Figure 4: *Pilot study example 4. 4 of 32 participants (12.5%) prefer our generated scenes.*

Figure 5: *Pilot study example 5. 3 of 32 participants (9.4%) prefer our generated scenes.*

input sketches

generated scene 1

generated scene 2
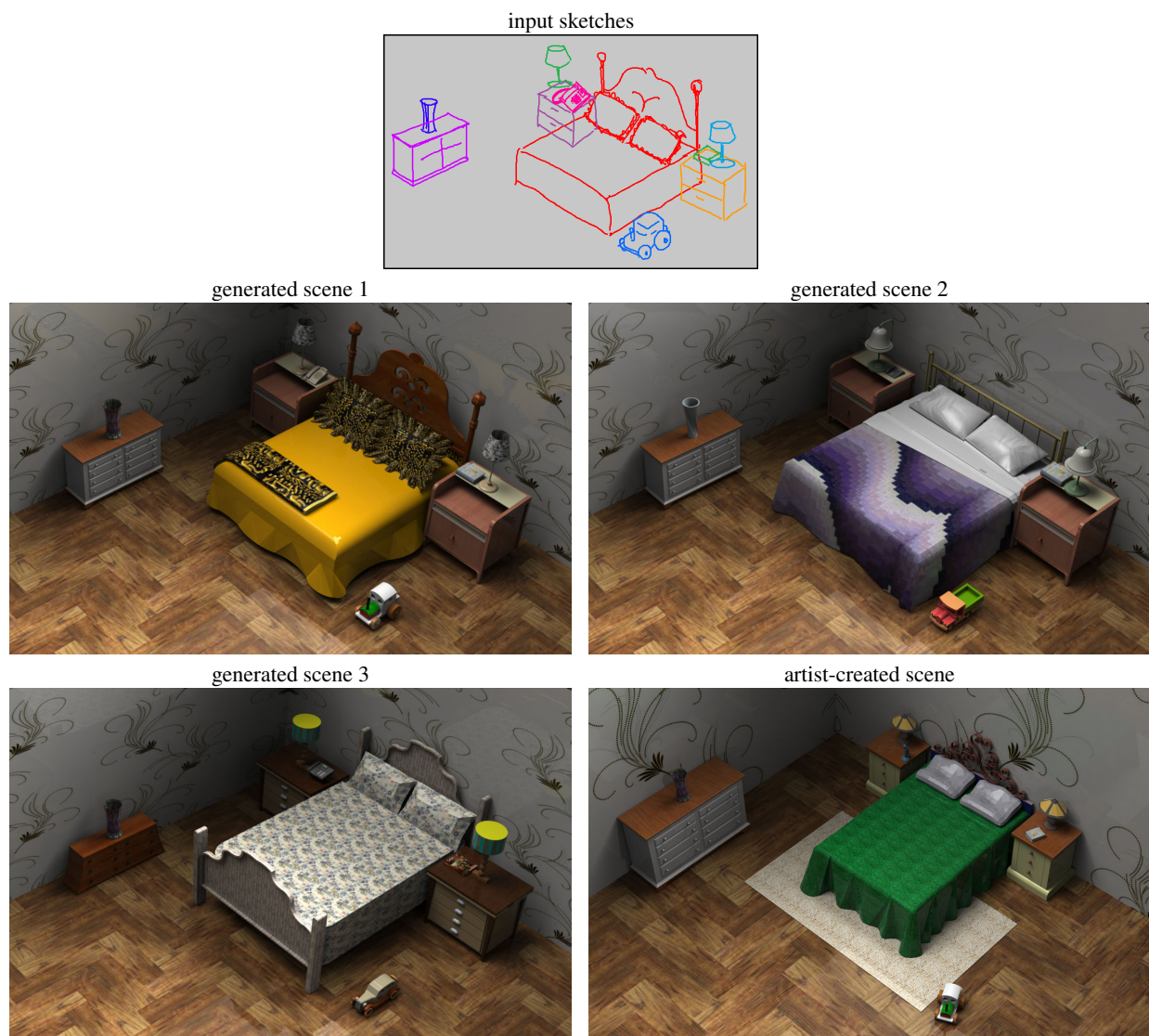
generated scene 3

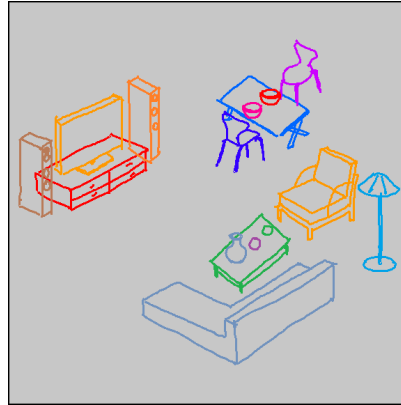artist-created scene

Figure 6: *Pilot study example 6. 17 of 32 participants (53.1%) prefer our generated scenes.*

input sketches

generated scene 1

generated scene 2

generated scene 3

artist-created scene

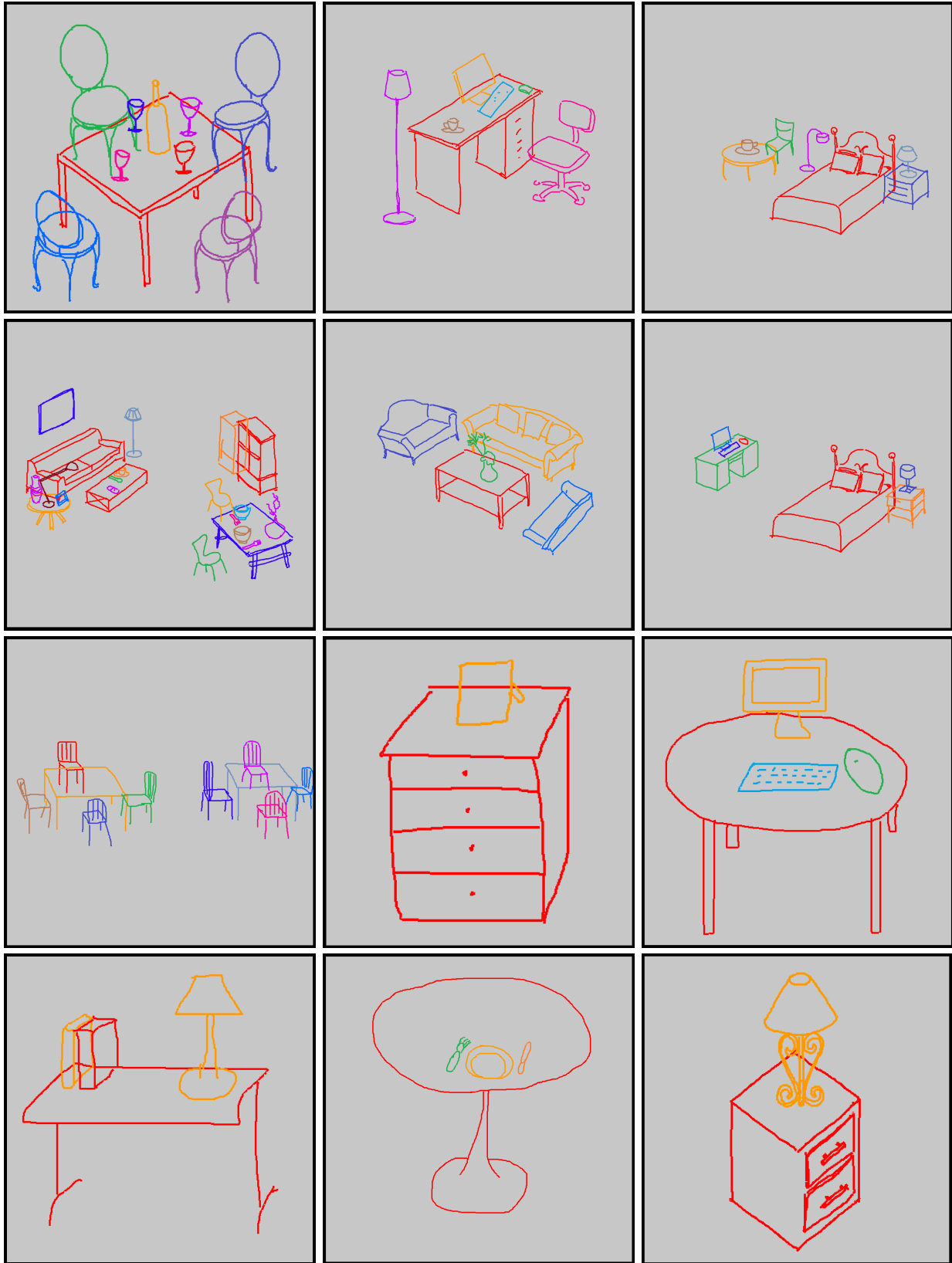**Figure 7:** *Pilot study example 7. 20 of 32 participants (62.5%) prefer our generated scenes.*
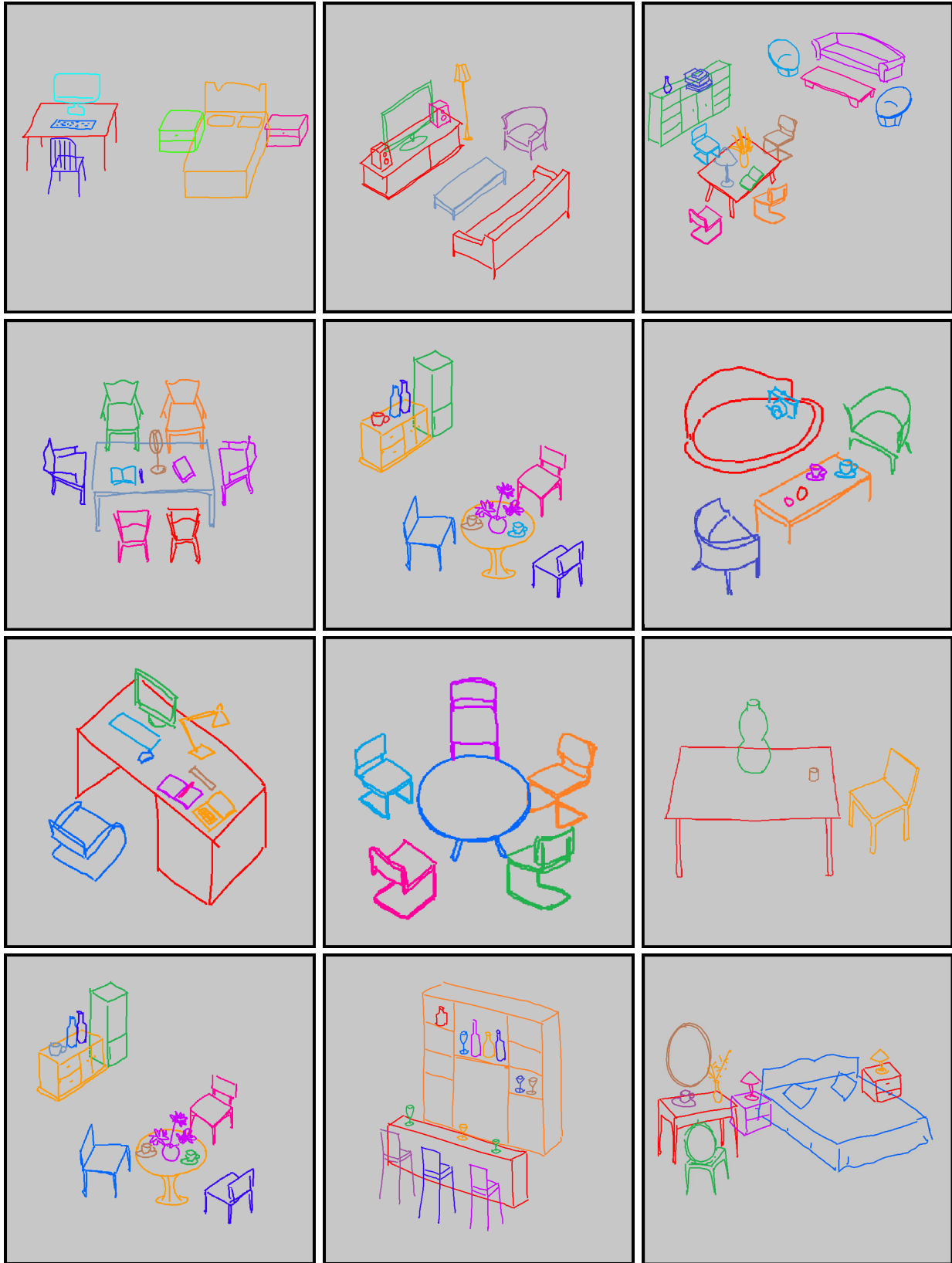
Figure 8: *Sketched scenes for parameter analysis (Part 1).*

Figure 9: *Sketched scenes for parameter analysis (Part 2).*