

Open House

The making of seven rooms you can walk into, from one photograph



One generated photo of an empty living room became seven rooms: the room as found and six makeovers. Each is a complete 3D world, walls behind you included, and the small things in them, lamps, cushions, bowls, a lantern, are real 3D models you can pick up, throw and hear land. An AI agent ran every generation step on Scenario through Scenario MCP, following the route of the open-source image-blaster project.

One photograph

The room started as a sentence



GPT Image 2.5 Sunburst on Scenario, 1920 x 1280, high quality

GPT Image 2.5 Sunburst rendered the empty room from this prompt. Two variants came back; the first was kept and every later step builds on it.

Photorealistic architectural interior photograph, magazine quality, natural light. An empty, unfurnished apartment living room seen from the doorway at eye height with a 24 mm wide-angle lens, one-point perspective, camera centred and level. The far wall has two tall rectangular windows with slim black steel frames and thin white sheer curtains pulled aside, soft overcast daylight pouring in, a hint of bare trees outside. [...] Clean, empty and calm: no furniture, no people, no text, no objects.

The framing matters later: every room keeps this camera, so each world starts at the same spot and the seven rooms line up around the visitor.

Six makeovers, one room

The same photo, edited six times with the architecture pinned in every prompt



Japandi, Kyoto



Seventies, Palm Springs



Brutalist, Barcelona



Riad, Marrakech



Treehouse, Oregon



Night capsule, Tokyo

Each makeover is an edit of the empty-room photo by the same model. Every prompt opened with the same fixed part, then described the place, the walls, two or three key pieces and the light:

Edit image 1. Keep the room's architecture, proportions, camera position, lens and perspective exactly as in image 1: the same two tall windows on the far wall, the same door on the left, the same alcove on the right, the same floor area and ceiling height. Change only the surface finishes, furniture, decor and lighting as described.

The first pass was soft

Why the rooms were rebuilt



First pass, 2026-10-03: a world from one photo smeared two steps in; the walk-based worlds that shipped were simplified and could only be walked along one line.

The first version turned each photo into an eight-second forward camera move and rebuilt the move as a Gaussian splat. It was walkable only along that move, and the tiers simplified for phones looked soft.

The next day World Labs Marble 1.1, which had failed on every attempt, worked again on Scenario. The rooms were rebuilt on image-blaster's route: a whole world from one clean photo, the movable objects lifted out and rebuilt in 3D, and physics.

Lift out the objects

Survey, erase, keep the room



The Seventies makeover



Its clean plate: the lamp, the patterned cushion and the floor vase erased

Each photo was surveyed for single objects a visitor could pick up, with a box, the surface it stands on, a size and its materials; two or three were kept per room, fifteen in all. Gemini 3.1 Flash erased them with a removal-only prompt, “remove the following from the image: ...”, naming each object and where it stands.

Removal edits can overreach. The Japandi plate recoloured a cushion instead of removing it, so that cushion was dropped; the first Riad plate removed every cushion on the bench and the second the carved screen, until a third try kept both.

Fifteen cut-outs

Each object alone on white



The same model drew each object again from the original photo, alone, centred on white, with image-blaster's isolation prompt:

Isolate the {object} from this image. Reproduce it exactly as shown -- same colors, materials, and proportions. White background, centered, tight crop, studio lighting. No other objects, no scene, no people, no text, no shadows on the ground. ...

Naming what rested on an object kept it out of the picture: the carved Riad table came back without its lantern. All fifteen were right on the first try.

A whole world from one photo

World Labs Marble 1.1



Japandi from the door, as in the photo

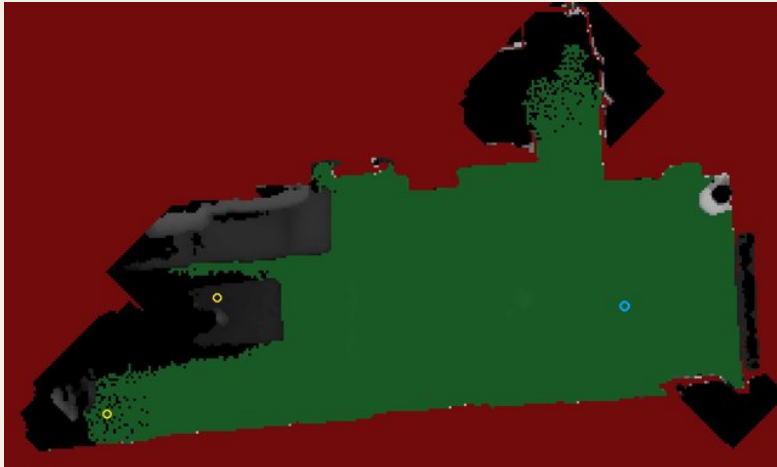


Turned around: the wall behind the camera, invented to match

Marble 1.1 turned each clean plate into a complete room of 1.65 to 1.84 million Gaussian splats, with a text prompt describing the room without the lifted objects. The photographed half is sharp; what the photo never showed, behind the camera and beyond the doorway, is invented in the same style. In the browser the worlds stream in levels of detail, coarse first and sharp where you look.

Measuring a world without a ruler

Floor, scale, lens and walls from the splats alone



Japandi from above, door at the right: walkable floor in green, furniture tops in grey, walls in red, the two objects circled



Finding the lens: the Night capsule world re-projected from the camera (left) against its photo (right)

A world comes without a floor, a scale or a collider. A plane fit finds the floor and levels it. Projected at a trial height, every lifted object came out about 1.4 times its expected size: the photo camera sat about a metre above the floor, and at that scale ceilings measure 2.7 to 3.3 m. Re-projecting each world onto its photo found the lens Marble assumed, different for each makeover. A 4 cm grid of floor, furniture tops and walls is what you walk on and what the objects land on.

Fifteen objects in 3D, fourteen kept

Hunyuan 3D 3.1 Pro with physically based textures



Hunyuan 3D 3.1 Pro rebuilt each cut-out as a textured model of 50,000 faces with physically based materials. For the web each was simplified to about 17,500 triangles with 1,024 px textures: 19 to 56 MB became 0.16 to 0.88 MB.

The fern came back as a solid urn with fronds painted on its surface, a known weak point of image-to-3D on foliage, and was left out. One job failed while downloading its result and was refunded; the retry worked.

Back where the photo had them

Placed from the photo itself



The Riad makeover



The 3D room from a few steps in: kilim cushion on the banquette, lantern on its carved table

The clean plate no longer shows an object, so the surface right behind the bottom of its box is where it stood: a depth image of the world, seen through the fitted lens, gives that point. Each model goes there at the height measured in the photo, turned to face the camera; the lantern is stacked on the table it stood on. Measured that way the stump table is 0.42 m tall for an estimated 0.40, the chair 0.85 m for 0.82.

Things you can throw

Physics and sound



In the browser, Rapier simulates the objects against the room's grid. Drag one to carry it, let go to throw it, walk into it to shove it. Rigid objects wait, exactly where the photo had them, until something touches them.

Sonilo V1.1 recorded each object's impacts, one clip of separate hits per object: "Four separate one-shot impacts, each followed by a full second of silence: ...". Cut apart, they play when an object lands, panned toward where it fell.

A new room sweeps in

Swap the style around you



The empty room



Mid-wave: the Seventies grows in around the visitor

Pick a style and the next room grows out from where you stand while the old one dissolves, behind a band of warm light, once enough of the new world has streamed in. The photo cameras of all seven rooms sit at the same spot, so you stay in the same place in the room.

Make your own

The route, in six steps

- 1 List the single movable objects in your photo, with their boxes, supports and sizes; keep two or three per room.
- 2 Erase them with a removal-only edit, and cut each one out on white from the original photo.
- 3 Turn the clean photo into a world with a single-image world model.
- 4 Rebuild each cut-out with image-to-3D and record a few impacts per object.
- 5 Fit the floor, the scale and the lens from the splats, and put each object back from a depth image.
- 6 Show it with a streaming splat renderer, a collision grid and a physics engine.

On Scenario, Open House used 5,850 CU: 4,268 for the rooms that ship now (worlds 2,048, 3D objects 1,800, plates 180, cut-outs 195, sounds 45) and 1,582 for the first pass, whose photo, makeovers and ambient sounds are still used.

[Walk through Open House](#)

[Scenario MCP](#)

[The agent skill for this route \(ZIP\)](#)

[Scenario skills on GitHub](#)

[image-blaster, the open-source route this follows](#)

[Spark, the open-source Gaussian splat renderer used in the browser](#)

[Rapier, the physics engine](#)