META-META Club

WORKBOOK · MODULE 3 OF 6

Villa → coast → estate

Agent-Built 3D. Scale one prompt from a single building to a whole site.

Pro studios | 2 lessons | ~2 h | 3-question practice quiz | Notes pages

IN THIS MODULE

Villa → coast → estate

Scale one prompt from a single building to a whole site.

#	LESSON	TYPE	TIME	DONE
3.1	From villa to coast to estate	VIDEO	30 min	☐
3.2	Scale your own scene	LAB	90 min	☐

How to use this workbook

- Work through each lesson on metametaclub.com/learn, or listen to its narration, then use the page here to take notes.
- Tick the steps as you go, and write your answers under **Check yourself** before you look anything up.
- Do the practice quiz at the end, then mark it with the answer key on the last pages.
- Keep every **Ship it** piece. Together they become what you show.

Before you start

What do you already know about this, and what do you want to be able to make by the end?

LESSON 3.1 · VIDEO · 30 MIN

From villa to coast to estate

Watch a scene grow from one building to a whole site, and learn the three ideas that keep a growing scene under control: reuse, structure and rules.

Key points

How it grows

Step one is a single villa. It is modelled once and done well.

At each step, the agent does the repetitive work. You set the rules and judge the result.

Three ideas

Reuse. You never copy the villa's geometry 40 times. You make one villa collection and place **instances** of it.

Structure. Name things and group them. A clean outliner looks like: `Villa` (the source), `Coast` (terrain and water), `Estate` (instances, roads, trees).

Rules. "Place villas every 18 to 24 metres along the shore, facing the sea, never on slopes steeper than 10 degrees." A rule like that becomes a short script. Change the rule, rerun, get a new site.

What to watch for

- When the presenter switches from hand-placing to a script.
- How variation is added: small random turns, two or three villa types, not 40 identical boxes.
- Where performance starts to matter, and what gets simplified for distant objects.
- Which choices are still made by eye: the hero view, the shoreline, the spacing.

Steps checklist

- [ ] Watch the section with a notebook open.
- [ ] Write down each rule you hear, in one sentence.
- [ ] Sketch the outliner structure as a tree.
- [ ] Note one place a person overruled the rule-based layout.
- [ ] Write the rule you will use for your own scene in the next lesson.

SHIP IT

Your list of rules and your outliner sketch, posted in the course thread.

- [ ] Shipped. Link or file: _____

Check yourself

1. Why are instances better than copies for 40 villas?

2. Can you write one placement rule in plain words?

3. Why does a clean outliner help the agent?

LESSON 3.2 · LAB · 90 MIN

Scale your own scene

Turn your week-3 room into a building and place many instances of it along a curved "shore" with a script. Then steer the layout with rules.

Key points

Before you start

Open `room.blend`. Select all the room objects, press **M**, choose **New Collection** and name it `Villa`.

The placement script

Save as `scatter.py`. It places 24 instances on an arc, faces each one outward, adds a little variation and saves a new file.

Run it headless: `blender -b room.blend -P scatter.py`, then open `estate.blend`.

Rules of thumb

- Variation beats randomness. Two or three controlled variations look designed; pure noise looks messy.
- Keep the seed. `random.seed(7)` means the same layout every run, so changes are easy to compare.
- Name every new object. `Road_Inner` beats `Plane.004`.

Steps checklist

- [ ] Make the `Villa` collection as above and save.
- [ ] Run the script. You should see 24 villas on a half circle.
- [ ] Hide the source room at the centre: in the outliner, untick `Villa` in the view layer (the checkbox), so only instances show.
- [ ] Add ground. A large plane is fine; a sculpted shoreline is better.
- [ ] Now steer with rules. Ask your agent for one change at a time: "skip any villa closer than 15 metres to its neighbour", "make every fourth villa a mirrored variant", "add a road on the inner side of the arc".
- [ ] Place a camera for one hero view of the whole site and render it.

```
This lesson has code samples. They are printed in full in the lab handout (agent-built-3d-lab-3-2.pdf)
and in the lesson on metametaclub.com/learn.
```

SHIP IT

A hero render of your site plus the rule list that produced it.

- [ ] Shipped. Link or file: _____

Check yourself

1. What changes in every villa if you edit the source `Villa` collection?

2. Why fix the random seed?

3. How would you change the script to place villas on a straight shore?

PRACTICE QUIZ

Check your module

Circle one answer for each question. The answer key is on the next page.

1. Why place instances of one Villa collection instead of 24 full copies?

(A) Instances render in colour, copies don't
(B) Instances share data, so the file stays small and one edit updates all
(C) Copies cannot be rotated
(D) Blender limits copies to 10

2. What does `random.seed(7)` give you in the scatter script?

(A) Seven villas
(B) A different layout every run
(C) The same layout every run, so changes are comparable
(D) Faster rendering

3. Which is the best way to add variation to a site?

(A) Random scale on everything
(B) Two or three controlled variants plus small turns
(C) Identical copies in a grid
(D) Different colours on every wall

ANSWER KEY

Answers and why

1 · B Instances share data, so the file stays small and one edit updates all

Collection instances point at one source, which keeps files light and changes consistent.

2 · C The same layout every run, so changes are comparable

A fixed seed makes randomness repeatable, so you can compare rule changes fairly.

3 · B Two or three controlled variants plus small turns

Controlled variation reads as designed; uncontrolled noise reads as messy.

NOTES

Build log and notes

SESSION	WHAT I MADE OR LEARNED	NEXT STEP