META-META Club

WORKBOOK · MODULE 3 OF 4

Research and capture

African Culture in Immersive Space. Research your story, object or place with permission, then capture it with care.

Pro studios | 2 lessons | ~2.5 h | 4-question practice quiz | Notes pages

IN THIS MODULE

Research and capture

Research your story, object or place with permission, then capture it with care.

#	LESSON	TYPE	TIME	DONE
3.1	Research a story, object or place	LAB	60 min	☐
3.2	Capture with care: photogrammetry and splats	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 · LAB · 60 MIN

Research a story, object or place

Research the story, object or place your exhibit or wearable will be built on. You'll keep a research log that records what you know, where it came from, and what you still don't know.

Key points

Good sources

Mix sources, and rank them honestly:

- **People.** The storyteller, the maker, the family, the people who live in the place. Usually your best source, and the one you need permission from.
- **Published work.** Books, museum records, academic papers, archives. Note the author and when it was written. Older outsider accounts can carry bias.
- **Places.** Visit if you can. Notice what's there now, not just what a book says.
- **Online.** Useful for leads, weak as proof. Check anything important against a person or a published source.

AI tools can help you summarise and find leads, but they also invent facts with confidence. Never put an AI-sourced "fact" about a culture in your exhibit without checking it against a real source.

Oral history, with permission

If someone tells you a story, it's theirs to share. Before you record:

1. Explain what you're making and where it will be shown.
2. Ask whether you can record audio, and whether you can use their name.
3. Ask whether any part should stay private.
4. Afterwards, play back or read back what you'll use. Let them correct it.

Keep the recording somewhere private. Don't post raw interviews.

The research log

Keep one file per project. Every entry has the same shape:

The "open question" line matters most. If a claim is low confidence, it stays out of the exhibit, or goes in as a clearly marked question: "We don't know yet why this pattern is used at weddings."

Steps checklist

- [ ] Write one paragraph on what you think your story, object or place is.
- [ ] List five things you'd need to know to tell it well.
- [ ] Find a source for each, and log it.
- [ ] Mark anything you couldn't confirm as low confidence.

This lesson has code samples. They are printed in full in the lab handout (african-culture-immersive-lab-3-1.pdf) and in the lesson on metametaclub.com/learn.

SHIP IT

A research log with at least eight entries, and a short list of what you still don't know.

☐ Shipped. Link or file: _____

Check yourself

1. Is every claim in your log tied to a named source?

2. What will you do with a claim you couldn't confirm?

3. Did you ask before recording anyone?

LESSON 3.2 · LAB · 90 MIN

Capture with care: photogrammetry and splats

Capture a real object or place in 3D, using photogrammetry or Gaussian splats, and do it in a way the owner or community is happy with.

Key points

Ask first

Before you point a camera at anything, check:

- **People.** Don't capture anyone without asking. Faces and bodies need clear consent.
- **Sacred or restricted objects.** Ask the keeper. If the answer is no, don't capture.
- **Private places.** Homes, shrines, workplaces: get the owner's OK. Public streets are usually fine, but be considerate about people in frame.

Two ways to capture

Photogrammetry turns many overlapping photos into a textured mesh. You get a normal 3D model you can open in Blender and load in Three.js.

Gaussian splats turn photos or video into a cloud of soft, coloured blobs that render very realistically. Great for places, foliage and light.

Many tools do both, on desktop, in the cloud or on a phone. The capture rules are the same.

Capture rules

1. **Even, soft light.** Overcast days or shade beat harsh sun. Avoid flash.
2. **Overlap.** Each photo should share roughly two thirds of its view with the next one.
3. **Orbit.** For an object, circle it at three heights: low, middle, high. For a place, walk a slow path and look back often.
4. **Sharp and steady.** Blurry photos ruin the result. Keep the subject still.
5. **Avoid shiny and see-through surfaces.** Glass, metal and water confuse the software.

Process

1. Load your photos into your capture tool and let it align them.
2. Generate a mesh or a splat.
3. For a mesh: open it in Blender, crop the ground and background, reduce the polygon count, and export as `.glb`.
4. Check the scale. A pot should be pot-sized.

Store the raw data with care

Keep the original photos private, in a folder labelled with the date, place and permission note. Don't upload raw captures of people or private places anywhere public.

SHIP IT

A cleaned `.glb` or a splat of your object or place, plus a one-line note on who gave permission to capture it.

- [ ] Shipped. Link or file: _____

Check yourself

1. Did you get permission before capturing?

2. Why do shiny surfaces cause problems?

3. When would you choose a splat over a mesh?

PRACTICE QUIZ

Check your module

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

1. An AI tool gives you a confident 'fact' about the meaning of a pattern. What do you do?

(A) Use it, AI tools are trained on lots of data
(B) Check it against a person or published source before using it
(C) Use it but add 'according to AI'
(D) Ignore all AI tools forever

2. What's the most important line in a research log entry?

(A) The date
(B) The open question
(C) The file name
(D) The word count

3. Which light is best for photogrammetry?

(A) Harsh midday sun
(B) Camera flash
(C) Even, soft light like an overcast day
(D) Coloured stage lights

4. The keeper of a ceremonial object says no to a scan. What next?

(A) Scan it from a distance
(B) Model it from memory instead
(C) Don't capture or recreate it; pick another object
(D) Scan it and keep the file private

ANSWER KEY

Answers and why

1 · B Check it against a person or published source before using it

AI tools can invent cultural facts with confidence. Check everything important against a real source.

2 · B The open question

Writing down what you don't know stops guesses from slipping into the exhibit as facts.

3 · C Even, soft light like an overcast day

Soft, even light gives clean textures and helps the software match photos.

4 · C Don't capture or recreate it; pick another object

No means no, including workarounds like recreating it.

NOTES

Build log and notes

SESSION	WHAT I MADE OR LEARNED	NEXT STEP