



EVERY STONE COUNTS · FIELD PROTOCOL · VERSION 2.0 · SEPTEMBER 2026

iPhone Capture Protocol

A 15-minute course for volunteer photographers documenting grave markers.

Three rules. If you remember nothing else, remember these.

1x

one lens, locked,
for the whole stone

76–80

sharp frames —
stop, then shoot

60 sec

check before
you walk away

Camden Factor

Every Stone Counts · for the teacher and the volunteers

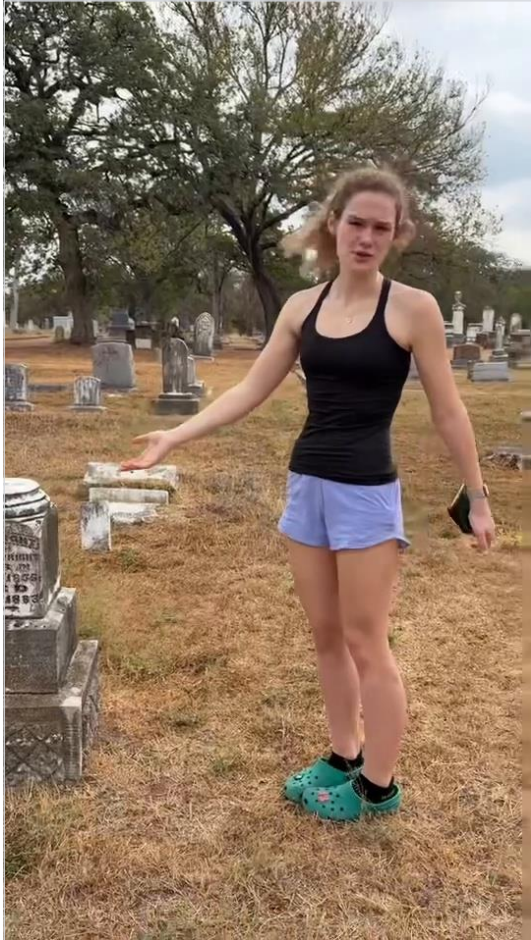
Settings are for the iPhone 15 Pro and Pro Max. Photogrammetry training: Alabama Historical Commission CRM Professional Training Program, Old Cahawba Archaeological Park. Photo: still from the course video.



Permission first



Before anything else, and before every marker.



Written landowner permission where required; family consent where descendants are known. Nothing is touched, cleaned or moved.

Landowner or cemetery association

Written permission before you photograph on private land, or wherever the owner or association asks for it. Keep a copy with the field log; write who gave it and when.

Family

Where descendants are known, their consent decides whether a marker is recorded and whether the record is shared. No consent, no capture.

On the day

Nothing is touched, cleaned or moved. No brushing, no wetting, no rubbings. Photograph the marker exactly as you find it; note anything already broken or leaning.

Most cannot be saved. They can be recorded.



3

Before you leave the house

Eight settings. Set them once — Settings app, then Camera. They stay set.



1 Formats

Camera Capture → Most Compatible
Photo Mode → 24 MP
ProRAW & Resolution Control → OFF

Plain 24 MP JPEG, and no RAW / HEIF Max button on screen to hit by accident.

2 Macro Control

Turn it ON

Counter-intuitive: ON gives you the flower button that switches automatic macro OFF. This is the big one.

3 Main Camera

Additional Lenses (28 mm, 35 mm) → all OFF
Default Lens → 24 mm

Then 1x is always 24 mm, however many times the button is tapped.

4 Photographic Styles

Set to Standard

Anything else bakes contrast and colour shifts into the file.

5 Grid

Turn it ON

Keeps the stone centred and the phone level without thinking about it.

6 Preserve Settings

Macro Control ON
Live Photo ON

Your macro-off and Live-Photo-off choices survive closing the app.

7 In the camera, once

Live Photo → OFF

Tap the concentric-circles button until it shows crossed out. Each Live Photo carries a video clip; the set doubles in size.

8 Before you drive out

Battery 100% · 10 GB free
Wipe the lens · Do Not Disturb

A smudged lens looks fine on the screen and ruins every frame.



4

At the stone: lock the camera down

Thirty seconds, every single time, before the first photograph.



1

Tap 1x

The label must read exactly 1x. If it reads 1.2x or 1.5x, tap it until it reads 1x.

Never 0.5x, 2x, 3x or 5x. Those are other lenses or crops, and the software then has to solve a second camera.

1x is the only lens that goes in the set

2

Turn macro OFF

Bring the phone to within a hand's width of the stone until the yellow flower appears. Tap it so it shows crossed out. Back up to working distance.

With Preserve Settings → Macro Control on, it stays off.

The button only appears when you are close

3

Press and hold to lock

Hold your finger on the middle of the stone until AE/AF LOCK appears in yellow. Focus and brightness are now frozen.

Lock once, at mid height, and keep it for the whole lap.

Any tap on the screen unlocks it — re-lock at mid height

If the label in the corner ever reads anything but 1x, stop. Those frames will not line up with the rest.



Light

Pale stone in hard sun is the worst case there is. Pick your hour.



BEST

Bright overcast, or the open shade of a building

- Even light everywhere on the stone
- Carving still reads, no blown white
- You can shoot any time of day

WORKABLE

First hour after sunrise, last two before sunset

- Low sun rakes across the carving
- Keep your own shadow off the stone
- Work fast — the light moves

NEVER

Midday sun, and dappled light under trees

- White stone goes pure white, detail gone
- Moving leaf shadows break the matching
- Never use the flash

If the sky is right, go. If it is not, the trip is better spent on something else — bad light cannot be fixed afterwards. Check the forecast the night before. On a clear-sky day, move the trip to the first hour after sunrise or the last two before sunset, and write which one it was in the field log.



6

Where to stand, and stay there

One distance for the whole stone. Detail comes from more angles, never from stepping closer.



Back up until the whole stone fits

Whole marker in frame, plus about a hand's width of clear space on every side. For a waist-high stone that is roughly two paces back.

Hold the phone upright

Portrait for tall markers. Landscape only for a low ledger stone. Match the shape and you waste fewer pixels on grass.

Keep that distance all the way round

Pick a crack, a root, anything on the ground, and pace the same arc. Changing distance mid-orbit is what confuses the software.

THE TRAP

Wanting a close-up of the carving is the trap. Stepping in triggers macro, macro switches the lens, and the whole set is compromised.

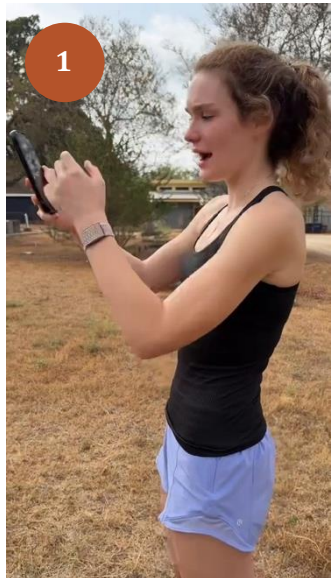
The photograph on the left is the distance: whole stone, a margin of ground and sky, phone upright, both hands.



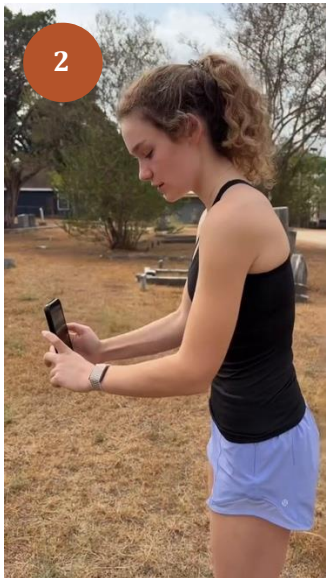
7

The three-height orbit

One complete circle. High, mid and low at every stop. This is the whole capture.



High: arms up, aiming down



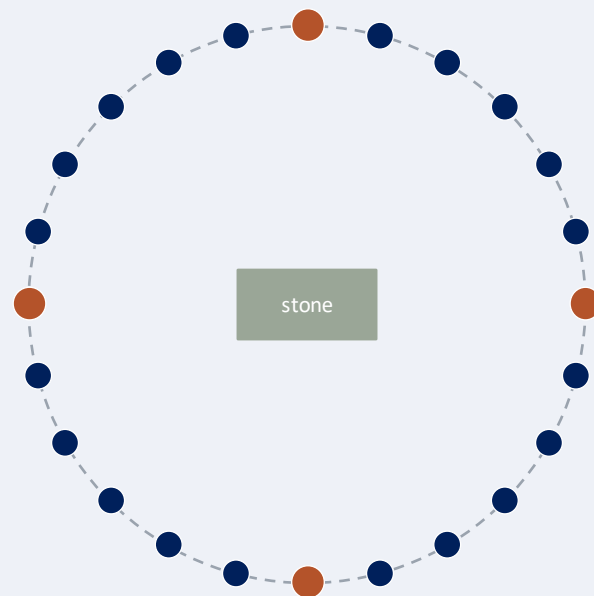
Mid: level with the middle



Low: crouched, aiming up

At every stop: high, mid, low — three frames, then one small step.

FROM ABOVE — one full circle, not an arc



24 stops per circle · one small step between each

24

stops per lap

×3

frames per stop

+4

top and both faces

= 76

frames minimum;
about 80 in practice



8

Step. Stop. Breathe out. Shoot.

Blur is invisible on a phone screen and fatal in the model. The rhythm is the cure.

STEP

>

STOP

>

BREATHE OUT

>

SHOOT

- **Two seconds a frame.** Eighty frames is about five minutes of actual shooting. It is not a long job when it is done properly.
- **Never press the shutter while you are moving.** Stop first, then shoot — every frame, no exceptions.
- **Both hands, elbows tucked in.** Brace against your own body, not the air. Lean on a tree if there is one.
- **Fewer, better.** Eighty sharp frames beat two hundred soft ones. The software works from sharpness, not from quantity.

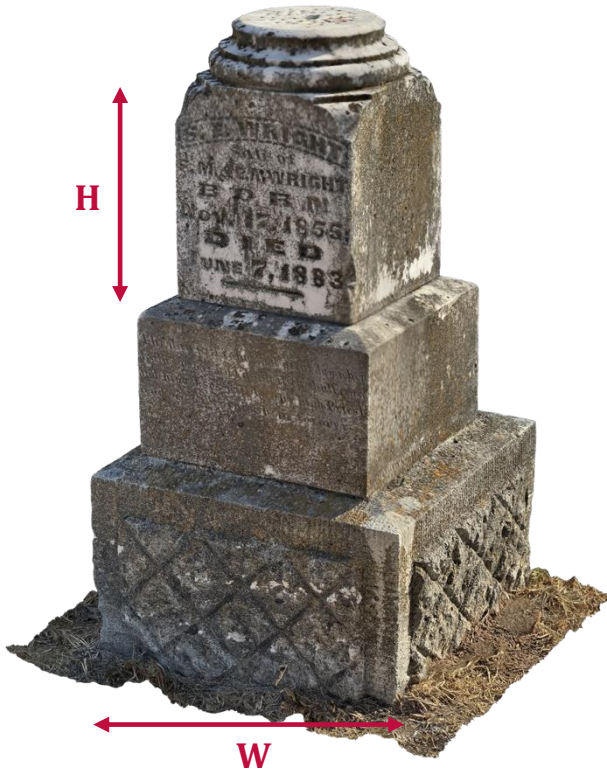
Target: 76 frames minimum, about 80 in practice. If you are past 120, you are walking and shooting instead of stopping and shooting.



9

Measure the stone

Your photographs give the shape. One measurement gives the size.



W base block, across the front face, edge to edge

H inscribed block, bottom edge to top edge

1

Open Measure

Built into iOS. On the 15 Pro and Pro Max the LiDAR scanner adds guide lines along straight edges.

2

Measure two dimensions

W and H, between corners you can point to in the photographs. Stand square to the face, about an arm's length away.

3

Measure each twice

If the two readings differ by more than 1 cm, do it again.

4

Save the screenshot

Tap the shutter in Measure, or take a screenshot, with the line and the number on screen. It goes in the same folder as the photographs.

5

Write it in the field log

What was measured, the reading in centimetres, and "Measure app" or "tape".

How good is it?

Apple describes the app's results as approximate. Independent tests of the iPhone LiDAR scanner (12 Pro) put small-object accuracy at about ± 1 cm — roughly 2% on a 60 cm base. A tape measure is more accurate: if you have one, use it and say so in the log. The processor uses your numbers to scale the model; without them nothing on it can be measured.



Sixty seconds before you walk away

Standing at the stone, phone in hand. A reshoot now costs five minutes; a return trip costs an hour.

☐

Right lens?

Open the last photo and three others at random; swipe up. The camera line should read Main Camera — 24 mm f1.78. Anything else is wrong: 13 mm is the ultra-wide; 28, 35 and 48 mm are crops; 77 and 120 mm are the telephoto. Reshoot those stops.

☐

Actually sharp?

Pick five at random. Pinch right in on the stone's surface. You should see grain and lichen. If it is mush, it is blur.

☐

Nothing clipped?

Whole stone plus margin in every frame. No cut-off tops, no missing base.

☐

Lap closed?

A full circle back to where you started, with high, mid and low at every stop. Any gap where you stepped round an obstacle?

☐

Count in range?

76 minimum, about 80. Well under means gaps; well over 120 means you were shooting on the move.

☐

Measured?

W and H, each twice, screenshots saved, numbers in the log.

If a scale bar or ruler was issued: it lies flat at the base, in view in a dozen or more of the low and mid frames, and does not move for the whole session.

11 Processing the Photographs



And the whole protocol on one card.

HANDOFF

1

Send originals only

AirDrop: in the share sheet tap Options, set the format to Current and turn on All Photos Data. Or import by cable. Never text them and do not email them — the size gets cut on the way.

2

Name the folder

Grave##_YourInitials_YYYY.MM.DD — for example Grave03_EF_2026.09.20. The Measure screenshots go in the same folder.

3

One line of field log

Date, time, sky, operator, device, lens locked yes or no, frame count, W and H (and "Measure app" or "tape"), who gave permission, and anything that blocked part of the lap.

THE WHOLE THING, IN ORDER

1. Permission first: landowner where required; family where known. Nothing touched, cleaned or moved.
2. Settings once: JPEG, 24 MP, Macro Control on, extra lenses off, Standard style, grid on. Live Photo off.
3. At the stone: 1x exactly. Macro off — get close, tap the flower, back up. Press and hold to lock.
4. Back up until the whole stone plus a margin fits the frame.
5. One full circle, about 24 stops. At every stop: arms up, level, crouched — then step.
6. Step, stop, breathe out, shoot. Never shoot while moving.
7. Four extras: straight down on top, square-on to each face.
8. Measure W and H with the Measure app, each twice. Screenshot both.
9. About 80 frames. Overcast light. No zoom, no close-ups. One phone per stone. Delete nothing in the field.
10. Sixty-second check: 24 mm, sharp, nothing clipped, lap closed, measured.