

Aú Helicóptero — The Road, the Contradiction, and the Error Layer That Was There

STATUS: corrected. Supersedes the 2026-08-31 draft. That version claimed *Ca-poeira 100* contains **none** of the progression, scaffolding, or error layer needed to arrive at the movement. The error layer is in the book, in the Pointers field, and the probe missed it — the same failure that produced v1 of 柒·壹. What survives is smaller and better evidenced. Nothing here has been trained by a human body.

What this teaches

The difference between a movement being **documented** and being **teachable**, using a case where both records exist side by side and disagree with each other in print. And a working method for the *aú helicóptero*: five steps, the cues for each, and one named prerequisite.

The correction

v1 wrote: *"the corpus documents the helicóptero completely as a destination... and contains none of the progression, scaffolding, or error layer."*

Three things are wrong with that.

1. The book has an error layer. It is sparse, but it is there, and it is well made. Entry 46, *Aú Quebrado* (Bico de Papagaio):

*"A regular error with *aú quebrado* is to attempt to kick the leg out to the side. The leg should kick forward and inward — otherwise the joint where your thigh connects to your hip will inhibit the movement."*

Entry 61 repeats it for the forearm version. That is a named error **with an anatomical cause** — structurally the same thing as the video's head-position error. v1's central claim was that this format has "no slot for what the fourth attempt looks like." The slot exists; the *helicóptero* entry simply doesn't use it.

2. The book has a mechanism cue, and it agrees with the video. v1 quoted only *"keep the legs as straight as possible."* The full entry 76 says more:

"Keep your eyes on the foot of the first leg. Let the first (right) leg steer the movement as you twist and drive it through figs. 3, 4, and 5. Don't bend the second (left) leg (keep it straight) — it will land on the floor naturally."

Compare the video: *"understand how the leg that comes out is the one that makes the turn, as long as possible."*

Two independent sources, the same instruction, and v1 reported the book as carrying no mechanism at all. **The strongest evidence in this lesson is an agreement, and v1 missed it while looking for a gap.**

3. The contradiction is real, and v1 never quoted its own evidence. v1 asserted the practitioner contradicts the widely taught cue, citing only the video's side. The book's side is explicit:

"You can almost let the first leg (the leading right foot) hit the floor (fig. 3), keeping it as low as you can get it, as in a normal aú."

Against: *"Many people teach the helicopter taking as a reference hitting something with the foot, near the ground, but after much analysis, I verify that this method is not efficient because it costs much more... I recommend making the turn as high as possible."*

So this is not one practitioner against a folk cue. It is **a printed reference and a practising teacher, in this corpus, giving opposite instructions on the same parameter.** That is the most valuable object in the lesson and v1 under-reported it.

What the book genuinely lacks

Not the error layer, and not the mechanism. What is absent from entry 76 is the **time axis**: no sequence of attempts, no partial success, no scaffold, no prerequisite. The book's per-entry schema is *Movement · Pointers · Application in the jogo* — three slots, all describing a finished body. None describes a learner over weeks.

That distinction holds and is worth keeping: **a technique is a description of a body; a progression is a description of a person changing.**

The generalisation, corrected

v1 concluded: "where a corpus is organised by technique, the error layer is not thin, it is structurally absent" — and rested the Mo Shiao 0-of-26 result on it.

Probed against three movement collections already in the corpus:

collection	error / progression layer	verdict
tricking_bible	none — Class A–F trick taxonomy only	supports v1
Encyclopedic-Of-Breakdancing	template <i>has</i> the slot: " <i>Tips: /common execution mistakes</i> ", sometimes declined — " <i>there are no tips or shortcuts for this one</i> "	mixed
Gymnastics- nas- tics_P- DHPE_Teach- ing_Resource_2023	full schema: SKILL STEPS · TEACHING POINTS · SAFETY POINTS · VARIATIONS · MODIFICATIONS · EQUIPMENT	refutes v1

The gymnastics resource carries all three missing things for **cartwheel** — the direct parent of **au**:

"MODIFICATIONS: Students can practice bunny hops over an object. Students may like to add a run before the cartwheel to progress in this skill."

"For students who need further assistance, breaking down the skill can make the skill more manageable."

"IMPORTANT INFO: The dominant movement pattern used in this skill is an anterior/posterior rotation."

The variable is not "organised by technique." It is what the document is for. Reference works drop the road; teaching resources carry it. The corpus contains one of the latter and v1 did not probe it before generalising.

This changes what the Mo Shiao 0-of-26 means. It is plausibly a fact about *corpus composition* — this shelf is mostly reference works — rather than a property of martial-

arts documentation. That is a cheaper problem: acquire pedagogy texts, don't rebuild the probe.

The movement — five steps and their cues

Sourced from the practitioner's manual captions (40uRa17PfIE , trust manual) and entry 76. Nothing invented.

Before you start

- **It is a back movement.** *"Most people who start trying the helicopter don't know this, but this movement is a back movement... the elasticity of our back will be very involved."* The book's only pointer is about the legs.
- **Prerequisite: learn Meia Lua Reversão first.** *"Look at the similarity of the helicopter with the meia lua reversão or lambida do peixe... the end of the movement is practically the same, and look at the back arch. I recommend learning first the Meia Lua Reversão to facilitate the learning of the helicopter."*
- **Prep posture, with a partner.** *"I recommend trying the posture you see on the screen with help, because the helicopter goes through this position, and is a good way to train our body to support the movement until the end."*
- **Two finishes exist, one counts.** Two legs forward — *"the movement is not finished, it is not complete, and it loses most of its aesthetics."* One leg, turning — *"more aesthetic, and allows us to continue with another helicopter, or with another movement without losing continuity."*

1 • The entrance — backwards, not sideways

"Bring the leg a little back, like when we do an aú crossing the leg." Then the important one: *"we will enter backwards, and not to the side as in the basic aú."* Lateral entry is possible *"but it is much more complicated, and requires much more elasticity in the back. So I recommend 100% do it this way."*

2 • The turn — high, steered by the exiting leg

"It is better to think about making the turn quite high with the leg, not near the ground." The steering cue, corroborated by both sources: *"the leg that comes out is the one that makes the turn, as long as possible" / "let the first leg steer the movement."* Keep your eyes on that foot. Expect to fall: *"at first, it is normal falling to the ground... but it is part of the process, so you have to repeat this point a lot."*

3 • Land higher — feet and one hand

"Try to fall a little higher, touching the ground only with the feet and one hand."

4 • Stand up, both feet together

"Then, slowly, try to stand up, even with both feet together. At this point, we have almost learned it."

5 • Finish on one leg, turning

"The most difficult thing is to finish... with only one leg and turning. Try to fall with both legs and turn. And in this way, and doing a lot of helicopters, you will finally be able to finish with only one leg."

The through-line

"Entry backwards, thinking of making the turn as high as possible, without raising your head, falling with only one leg — and repeat it thousands of times."

On the head: *"the head must be left behind to facilitate the curvature in your back... with the head forward the aesthetic is completely broken."* Head back is not styling; it is what lets the back arch.

Drill

Primary path: steps 1–5 above. v1 made the raised-surface scaffold *the* drill. In the source it is explicitly a fallback — *"If the previous method has not worked for you, there is another one."*

Fallback, if you stall — most likely at step 5. Perform the helicóptero from a raised surface *"so that the legs end lower... you don't need so much back elasticity, and it also helps us to understand and feel the sensation of finishing the movement on one foot, and turning."* Then *"start from a height, and gradually do it with less height, and finally doing it on the ground."* Record the height in centimetres as the number that moves week over week; terminal condition is height = 0, finishing on one leg.

The test nobody has run. Film one set turning high and one turning low; count completions per attempt. The book says low, the practitioner says high, and this corpus contains both claims in print.

Limit

- **The prerequisite is undocumented here.** `Capoeira 100` has no meia lua reversão entry. It has #32 Meia Lua de Compasso, #36 *Reverse* Meia Lua de Compasso (a two-player timing exercise, a different thing), and #59 Aú Chibata. **The one movement the practitioner names as the prerequisite is absent from the reference work** — which is the lesson's own thesis happening one level down.
- **Single source for the progression.** All five steps and the scaffold trace to one practitioner. No second capoeira source corroborates them.
- **The contradiction is unresolved.** Two sources, opposite instructions, no test run.
- **Error-layer density is untested.** Two named errors were found in `Capoeira 100` by targeted probe. Whether that is 2 of 100 or 40 of 100 has not been counted, and the claim "sparse" is an impression, not a measurement.
- Nothing here has been trained.

open	what would settle it
High turn vs low turn — which costs less?	Film both, count completions per attempt
How many of the 100 entries carry a named error?	Count them — a page-by-page read, not a semantic probe
Is the five-step progression general or personal?	A second capoeira teaching source
Does the Mo Shiao 0-of-26 survive a pedagogy text?	Acquire one and re-run the extraction

Sources. `Capoeira_100` entries 16 (aú normal), 32 (meia lua de compasso), 36 (reverse meia lua de compasso), 46 & 61 (aú quebrado — the named errors), 59 (aú chibata), 76 (helicóptero, full Pointers). `Gymnastics_PDHPE_Teaching_Resource_2023` (cartwheel schema); `Encyclopedia_Of_Breakdancing`; `tricking_bible`. **Practitioner source.** `40uRa17PfIE`, 6:36, manual captions, trust `manual`. **Retrieval.** `query_chromadb` per-collection, n=3–6 — the full text of entry 76 surfaced only on the third targeted probe, not on the original 8-passage run.