

INTRODUCING FA TUNING TO MALAYSIA (2005): THE FIRST DOCUMENTED ADOPTION IN HIGHER-EDUCATION OUD/GAMBUS PEDAGOGY

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ABSTRACT

This practice-based article documents the first verifiable institutional adoption of *Fa* tuning in Malaysian higher-education *oud/gambus* pedagogy in 2005, introduced by the author at ASWARA following a period of study at *Beit al-Oud* (Cairo). Prior to 2005, local Malaysian practice commonly employed a *B–E–A–D–G–C* course layout (low→high). The author implemented *F–C–D–G–C–F* (low→high) on a Yaroub Fadel “Bashir”-style Iraqi *oud*, strung with Pyramid Laute strings, without requiring organological modification. The tuning was selected for its tonal palette, register balance, and pedagogical advantages in *taqsīm* training and modal navigation, particularly in *Maqām Nahawand* and *Maqām Rast*. Using contemporaneous documentation, including a 2005 training certification and photographs from *Beit al-Oud*, held in the author’s archive, and a case narrative of classroom integration at ASWARA (April 2005 onward), the article compares intervallic layouts and practical ranges between the pre-2005 scheme and *Fa* tuning. A fingerboard map, comparative table, and timeline operationalize the analysis for teachers, students, and luthiers. The discussion frames the 2005 event as a modern transmission through pedagogical networks (Cairo → Kuala Lumpur), demonstrating how tuning functions as curriculum design in *maqām*-based training. The article concludes with practical guidance on stringing and teaching sequences and invites archival corroboration for pre-2005 Malaysian usage, thereby establishing a verifiable anchor for future scholarship on tuning-led innovation in Malaysian *oud/gambus* education.

Keywords: *Fa* Tuning; *Gambus* Pedagogy; *Maqām*; Practice-Based Research

ABSTRAK

Artikel berasaskan amalan ini mendokumentasikan penerapan pertama sistem penalaan *Fa* dalam pedagogi oud/gambus di institusi pengajian tinggi Malaysia pada tahun 2005, yang diperkenalkan oleh penulis di ASWARA selepas tempoh pengajian di *Beit al-Oud* (Kaherah). Sebelum tahun 2005, amalan tempatan lazimnya menggunakan susunan dawai B–E–A–D–G–C (rendah→tinggi). Penulis melaksanakan susunan F–C–D–G–C–F (rendah→tinggi) pada sebuah oud gaya “Bashir” buatan Yaroub Fadel (Iraq), digandingkan dengan tali Pyramid Laute, tanpa memerlukan pengubahsuaian organologi. Penalaan ini dipilih kerana palet tonalnya, keseimbangan register, serta kelebihan dari segi pedagogi dalam latihan *taqsim* dan navigasi modal, khususnya dalam *Maqām Nahawand* dan *Maqām Rast*. Dengan menggunakan dokumentasi sezaman, termasuk sijil latihan 2005 dan fotografi dari *Beit al-Oud* yang disimpan dalam arkib penulis, serta naratif kes tentang integrasi bilik darjah di ASWARA (April 2005 dan seterusnya), artikel ini membandingkan susunan interval dan julat praktikal antara skema pra-2005 dengan penalaan *Fa*. Jadual perbandingan dan garis masa digunakan bagi mengoperasikan analisis ini untuk guru dan pelajar oud. Perbincangan membingkai peristiwa tahun 2005 sebagai satu bentuk transmisi moden melalui rangkaian pedagogi (Kaherah → Kuala Lumpur), yang menunjukkan bagaimana penalaan berfungsi sebagai reka bentuk kurikulum dalam latihan berasaskan *maqām*. Artikel ini disimpulkan dengan panduan praktikal tentang penalaan tali dan urutan pengajaran serta mengundang pengesahan arkib bagi penggunaan pra-2005 di Malaysia, sekali gus menetapkan rujukan yang boleh disahkan untuk kajian akan datang mengenai inovasi penalaan dalam pendidikan oud/gambus di Malaysia.

Kata kunci: Penalaan *Fa*; Pedagogi Gambus; *Maqām*; Penyelidikan Berasaskan Amalan

1. INTRODUCTION

The *oud*'s course layout is more than a technical choice; it is a pedagogical architecture that shapes how students hear, feel, and reproduce *maqām* lineages. In Malaysia, the prevailing pre-2005 practice among *gambus/oud* players commonly centered on a B–E–A–D–G–C ordering (low→high). In 2005, after focused study at *Beit al-Oud* (Cairo) with Naseer Shamma, Mustafa Said Antar, and Nehad Sayyid, the author introduced *Fa* tuning, F–C–D–G–C–F (low→high), into the ASWARA music department. The initiative aligned Malaysian classroom work with the Iraqi soloist lineage (associated with Munir Bashir and the Fadel luthier family) while responding to specific needs of local pedagogy and performance.

This article advances two interlinked claims. First, it provides the first documented account of *Fa* tuning's adoption in a Malaysian higher-education context (ASWARA, April 2005), evidenced by contemporaneous training certification and photographic records from Cairo and by the author's teaching deployment upon return. Second, it demonstrates that *Fa* tuning operates as a pedagogical lever: by rebalancing

functional registers across the six courses, the tuning simplifies early *taqsīm* scaffolds, clarifies cadential targets, and enhances ensemble applications (e.g., poetry accompaniment) without requiring organological changes to nut, bridge, scale length, or action.

Rationale and contribution. The *Fa* layout encourages a warmer low register and coherent mid-register continuity, supporting tonic/dominant relationships and *jins* articulation central to *Maqām Nahawand* and *Maqām Rast*. For novice and intermediate students, these affordances reduce the cognitive load of fingerboard mapping and improve *aural anchoring*, the ability to maintain modal center while exploring neighboring degrees and modulations. For instructors, open-string references become reliable teaching pivots for call-and-response, imitation drills, and formative assessment of cadential control. In ensemble situations (notably poetry recitation accompaniment), the *Fa*-based bass floor supplies stable drones and ostinati that integrate cleanly under voice and text.

1.1 Malaysian context

Prior to 2005, Malaysian *gambus* pedagogy reflected diverse local practices with limited standardized attention to course architectures as explicit curriculum design. The 2005 adoption of *Fa* tuning marks a pedagogical inflection point: rather than importing repertoire alone, it imported a teaching logic embedded in tuning, one that aligns hardware, hand positions, and *maqām* heuristics. This is not a break with heritage but a re-channelling of transmission through contemporary teacher networks (Cairo → Kuala Lumpur), complementing longer historical narratives.

1.2 Objectives

The article (i) documents the first verifiable institutional adoption of *Fa* tuning at ASWARA in 2005; (ii) analyzes its modal and pedagogical affordances vis-à-vis the local pre-2005 scheme; (iii) presents applied teaching tools (a comparative table, fingerboard map, and timeline); and (iv) offers practical guidance on stringing and classroom sequencing to aid replication.

1.3 Structure

Section 2 situates *Fa* tuning within concise organological and pedagogical context. Section 3 outlines the practice-based method and evidentiary basis. Section 4 narrates the 2005 case and classroom integration. Section 5 analyzes modal pathways (*Nahawand*, *Rast*), compares with local practice, and theorizes transmission. Section 6 provides a practical guide (stringing, teaching sequence). Section 7 concludes with implications and avenues for further documentation.

1.4 Methodological Positioning

This article is structured as practice-based research, where teaching and performance practice function as legitimate sites of knowledge production, provided that claims are transparently delimited and supported by verifiable evidence. The author writes as a practitioner-researcher documenting a pedagogical intervention, *Fa* tuning, implemented in a higher-education studio

context. The study combines (i) archival documentation (*Beit al-Oud* certification, contemporaneous photographs, and archived correspondence on Pyramid Laute string gauges), (ii) reconstructive case narrative of classroom adoption at ASWARA (from April 2005 onward), and (iii) modal-functional analysis linking course layout to *maqām* navigation and *taqsīm* training outcomes.

The purpose is not statistical generalization but analytical generalization: showing how a tuning layout can shape tonic anchoring, cadential control, and register pacing in early *maqām*-based learning. Claims are therefore confined to what can be substantiated through the above evidence and what can be argued through reproducible pedagogical procedures (tables, schematic figures, and teaching sequences). Where broader implications are proposed, they are presented as transferability considerations rather than universal outcomes.

2. LITERATURE & CONTEXT

2.1 Course architectures and modal embodiment

Across Arab *oud* traditions, course layouts (string orderings and open-string references) act as tacit pedagogies: they shape how *maqām* tonics, dominant functions, and cadential targets are located under the hand (Touma, 1996; Racy, 2003). The widely used “uniform fourths” scheme (low→high *B–E–A–D–G–C* in Malaysia pre-2005) privileges consistent spatial mapping but can place bass pedals and some cadential gestures at less convenient distances for early *taqsīm* training (Marcus, 2007; Racy, 2003). By contrast, *Fa* tuning (low→high *F–C–D–G–C–F*) redistributes function across registers, producing a warmer pedal floor and a coherent mid-register corridor that supports stepwise and third-based motion typical of *Rast* and *Nahawand* expositions (Marcus, 2007; Touma, 1996). Organologically, both schemes can be realized on standard six-course instruments without structural modification, so the difference is principally didactic rather than mechanical (Touma, 1996). (See Figure 1; Table 1.)

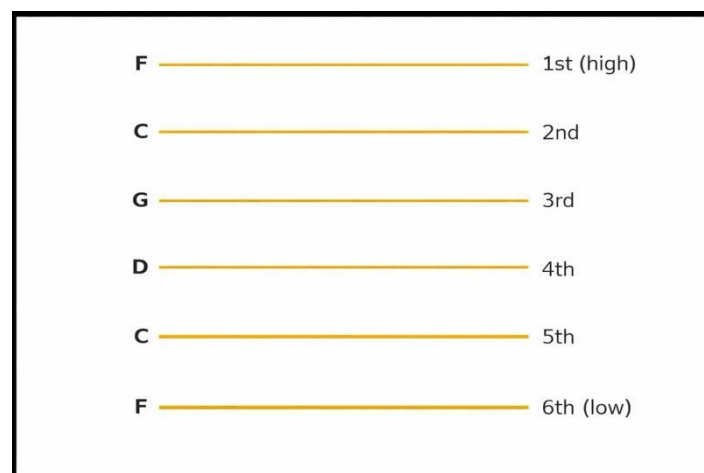


Figure 1. *Fa* tuning open-string layout for a six-course *oud* (low→high: *F–C–D–G–C–F*). Schematic course view; octave assignment may vary by performance practice.

Scheme (low→high)	Adjacent open-string intervals	Practical register feel	Modulations eased	Notes / trade-offs
Local pre-2005: B–E–A–D–G–C	P4 / P4 / P4 / P4 / P4	Mid–upper focus; bass drones less central	Depends on repertoire; familiar local fingering habits	Uniform fourths = simple mapping, but some <i>Rast/Nahawand</i> cadences feel less grounded in bass
Fa (2005): F–C–D–G–C–F	P5, M2, P4, P4, P4	Warmer, clearer bass; coherent mid-register; bright top	<i>Rast</i> , <i>Nahawand</i> stepwise & cadential gestures; bass pedals for <i>taqsīm</i>	Initial fingering adjustments on 5th→4th course due to P5→M2 jump

Table 1. Local pre-2005 vs *Fa* tuning: intervallic layout, range, and modulation affordances

2.2 The Iraqi lineage and *Fa* tuning

Fa-based layouts are closely associated with Iraqi soloist aesthetics linked to Munir Bashir and subsequent Baghdad/Cairo pedagogical circuits, including *Beit al-Oud* under Naseer Shamma (Racy, 2003; Shannon, 2006). In this lineage, timbral priorities (sustained bass drones, singing middle register, articulate treble) are not merely coloristic preferences; they underpin *taqsīm* design, particularly the pacing of tonic confirmation, the handling of neutral-third tendencies in *Rast*, and the rhetorical “lift” into upper-course color tones before cadential descent (Marcus, 2007; Racy, 2003). Luthiery associated with leading Iraqi makers developed instruments that complement these aesthetics; however, *Fa* tuning remains a pedagogical configuration rather than a property of any single organological school (Touma, 1996; Racy, 2003). (*Cf. Figure 1 for course roles.*)

2.3 Malaysian institutional context before 2005

Prior to 2005, Malaysian *gambus/oud* practice reflected heterogeneous local habits and repertoires, with limited explicit attention to course architecture as a curricular design variable. Teaching commonly emphasized repertoire transmission, general musicianship, and ensemble functionality, while tuning choices were often treated as background setup rather than foreground pedagogical strategy (Raja Zulkarnain, 2024, 2025a). Within this milieu, the 2005 introduction of *Fa* tuning at ASWARA marked a shift toward treating tuning as a curricular variable rather than a neutral setup choice. This

orientation aligned local training practices with established Iraqi pedagogical lineages while remaining responsive to Malaysian performance contexts, including poetry accompaniment and campus recital settings (Raja Zulkarnain, 2025b). (See Figure 2.)

2.4 Tuning as pedagogy: implications for *taqsīm* training

Literature on *maqām* pedagogy consistently identifies three early bottlenecks: (i) aural anchoring of the modal center during exploration; (ii) intelligible cadential control; and (iii) register management to avoid premature tessitura inflation (Racy, 2003; Marcus, 2007). *Fa* tuning directly addresses these by:

- a) Supplying a stable bass floor for drones/ostinati that reinforce tonic gravity;
- b) Creating proximal open-string pivots that clarify *jīns* articulation and cadence targets;
- c) Offering a continuous mid-register corridor that supports gradual intensification before upper-course coloration (Touma, 1996; Marcus, 2007).

For *Rast*, this facilitates negotiation of the neutral/raised third in relation to fixed pedal references; for *Nahawand*, it streamlines minor-mode cadences and dominant re-centering (Marcus, 2007; Touma, 1996). In ensemble settings with voice/poetry, the *Fa* layout's bass–mid balance improves blend and textual intelligibility, an applied concern in Malaysian performance practice (Raja Zulkarnain, 2025b). (See Table 1; Figure 1.)

2.5 Contemporary transmission vs. longue durée narratives

Accounts of the *oud/gambus* in the Malay world often foreground longue durée diffusion (trade routes, diaspora) (Racy, 2003; Touma, 1996; Raja Zulkarnain, 2024). While historically valuable, such frames can obscure modern pedagogical channels, intensive study, certification, and direct studio transplantation, that measurably change classroom practice. The *Beit al-Oud* → ASWARA (2005) pathway exemplifies this contemporary vector: a teacher-to-studio transmission in which tuning, not just repertoire or technique, functions as the transferable unit. Documenting this institutional adoption of *Fa* tuning within Malaysian higher education thus complements historical narratives with a verifiable, practice-based node in the instrument's local timeline (Marcus, 2007; Raja Zulkarnain, 2025a, 2025b). (See Figure 2.)

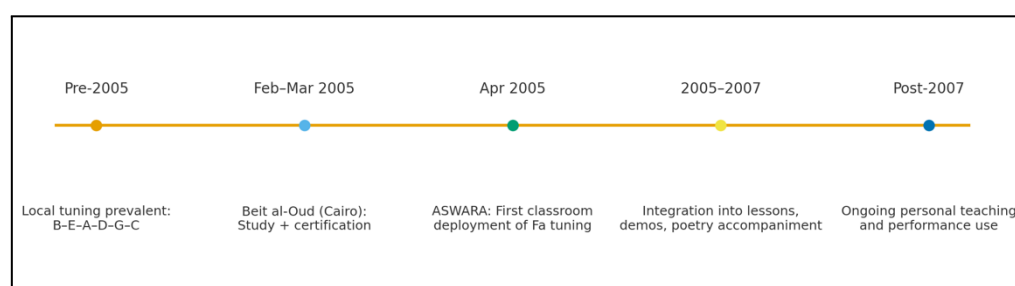


Figure 2. Timeline of *Fa* tuning adoption in Malaysia: pre-2005 local scheme (*B–E–A–D–G–C*); Feb–Mar 2005 *Beit al-Oud* study (Cairo); April 2005 ASWARA classroom deployment; 2005–2007 integration into lessons/poetry accompaniment; post-2007 ongoing use.

3. METHODS

3.1 Design

This is a practice-based documentation and analytical case study of a first documented adoption event (*Fa* tuning at ASWARA, April 2005). The study triangulates: (i) contemporaneous artifacts (training certification and photographs from *Beit al-Oud*, Feb–Mar 2005); (ii) instrument and stringing specifications; and (iii) structured reconstruction of classroom praxis and repertoire used during the initial deployment period (April 2005–2007).

3.2 Site and period

- a) Training site (pre-deployment): *Beit al-Oud*, Cairo, Feb–Mar 2005.
- b) Adoption site (deployment): ASWARA (Kuala Lumpur), April 2005 onward.
- c) Public interface: Poetry-accompaniment and campus performances within 2005–2007.

3.3 Participants and scope

The focus is the author's studio teaching at ASWARA in 2005–2007. Student names are anonymized (cohort-level descriptions only). No clinical data were collected; observations are pedagogical (technique, *taqsim* formation, modal retention).

3.4 Materials: instruments, strings, and tuning schemas

- a) Instrument: Yaroub Fadel "Bashir"-style Iraqi *oud* (six-course).
- b) Strings: Pyramid *Laute* (Germany), with gauges confirmed in contemporaneous correspondence: 4 steel wound strings (1027, 1014, 1010, 1005) and 2 nylon strings (0.650, 0.525). These measurements were verified in an email exchange between the author and *Beit al-Oud* teacher Mustafa Said Antar (8 April 2005), substantiating the precise configuration used during the first deployment of *Fa* tuning. Baseline tension was medium, with no organological modification required.
- c) Tuning under comparison:
 - i. Local pre-2005 scheme: *B–E–A–D–G–C* (low→high).
 - ii. *Fa* scheme (introduced 2005): *F–C–D–G–C–F* (low→high).
 - iii. Setup changes: None required (no nut re-cut, bridge compensation, scale, or action changes).

3.5 Procedures

- a) Pre-deployment acquisition. Study with Naseer Shamma, Mustafa Said Antar, and Nehad Sayyid at *Beit al-Oud*; obtaining a certification of attendance (held in the author's archive).

- b) Studio adoption at ASWARA (April 2005). Establish *Fa* tuning as the default instructional layout for demonstration and guided practice.
- c) Pedagogical sequence.
 - i. Weeks 1–2: Open-string drones and tonic/dominant pedals; call-and-response phrases.
 - ii. Weeks 3–4: Short *taqsīm* cells emphasizing *Rast* and *Nahawand* cadence and stepwise motion.
 - iii. Weeks 5–8: Etudes and lessons (after Salem Abdul Karem), adapted to *Fa* course roles; performance simulation for poetry accompaniment.
- Comparative demonstrations. Side-by-side illustration of pre-2005 layout vs *Fa* layout for cadential clarity, bass-pedal function, and mid-register continuity (documented in Table 1 and Figure 1).
- Public-facing usage. Employ *Fa* tuning in poetry-accompaniment contexts to assess ensemble blend and register balance.

3.6 Analytic approach

- a) Functional/intervallic analysis. Map open-string relations (adjacent intervals; pedal feasibility) and codify expected effects on *jins* articulation and cadential targets (cf. Table 1).
- b) Register/texture analysis. Evaluate bass-floor stability, mid-register continuity, and treble coloration relevant to *taqsīm* pacing (cf. Figure 1).
- c) Timeline verification. Align dated artifacts (certification, photo metadata) with adoption milestones (Figure 2) to anchor the “first documented adoption” claim.

3.7 Verification of the “first documented adoption” claim

Documented evidence held in the author’s archive includes: (i) *Beit al-Oud* certification (Feb–Mar 2005); (ii) photographs from the same period; (iii) deployment at ASWARA from April 2005 (teaching notes and performance memory records); and (iv) archival email correspondence dated 8 April 2005, in which *Beit al-Oud* teacher Mustafa Said Antar confirmed the Pyramid Laute gauges for *Fa* tuning, indicating that the stringing system was intentionally selected and documented at the time of introduction. No prior Malaysian higher-education documentation of *Fa* tuning as formal pedagogy has been identified by the author. This “first documented adoption” claim is delimited to verifiable institutional higher-education teaching contexts and does not preclude informal, individual, or undocumented experimentation outside academic settings prior to 2005. Scholars with verifiable pre-2005 evidence are invited to contact the author for archival consolidation.

3.8 Validity, limitations, and mitigations

- a) Archival asymmetry. Formal assessment sheets from 2005–2007 are incomplete; this is mitigated by triangulating functional analysis, dated artifacts, and reproducible teaching sequences.
- b) Single-site scope. Findings are anchored in ASWARA; generalization is analytic (modal/organological logic) rather than statistical.

- c) Researcher role. The author is the practitioner-researcher; transparency is addressed via explicit procedures, artifacts list, and open materials (below).

3.9 Ethics

No human subjects data beyond routine pedagogy were collected. Student identities are anonymized at cohort level. The study reports practice and artifacts owned by the author.

3.10 Reproducible materials and figure generation

- a) Table 1 (intervallic comparison) and the teaching sequence are provided in the manuscript for replication.
- b) Figure 1 (open-string schematic) and Figure 2 (timeline) are author-generated graphics created for this study; source files available on request.
- c) Strings and setup notes (scale 58.5–60.0 cm) reflect the Pyramid *Laute* set used in April 2005: four steel wound strings (1027, 1014, 1010, 1005) and two nylon strings (0.650, 0.525). This configuration was confirmed in contemporaneous correspondence with *Beit al-Oud* teacher Mustafa Said Antar (8 April 2005).

3.11 Data and materials availability

Certification scans, photographs, and archival email correspondence from 2005 are available upon reasonable request from the author. If required, these materials can be deposited in an open repository (e.g., Zenodo/OSF) with a DOI provided at the proof stage.

4. RESULTS/CASE NARRATIVE

4.1 Introduction timeline

- a) Pre-2005.
Local practice commonly used a uniform-fourths layout (low→high *B–E–A–D–G–C*).
- b) Feb–Mar 2005.
The author undertook focused study at *Beit al-Oud* (Cairo) with Naseer Shamma, Mustafa Said Antar, and Nehad Sayyid; certification and photographs are on file.
April 2005. First classroom deployment at ASWARA of *Fa* tuning (low→high *F–C–D–G–C–F*) on a Yaroub Fadel “Bashir”-style Iraqi *oud*, using Pyramid *Laute* strings; no organological modifications were required. (*Figure 2*).
- c) 2005–2007.
Integration into weekly lessons, demonstrations, and poetry-accompaniment performances; *Fa* tuning became the default demonstration layout in the studio.
- d) Post-2007.
Continued use in the author’s teaching and performance practice in Malaysia.

4.2 Instrument and strings

- a) Instrument: Yaroub Fadel (Iraqi), “Bashir”-style six-course *oud*.
- b) Strings: Pyramid Laute (Germany), baseline medium tension; configured with 4 steel wound strings (1027, 1014, 1010, 1005) and 2 nylon strings (0.650, 0.525).

The string configuration is supported by contemporaneous April 2005 email correspondence between the author and *Beit al-Oud* teacher Mustafa Said Antar, confirming the gauges ordered and used at the time of introduction.

- c) Setup: No nut, bridge, scale, or action changes required.

4.3 Classroom deployment and repertoire

- a) Week 1–2 (foundations).
Open-string drones (tonic/dominant), call-and-response cells; emphasis on aural anchoring.
- b) Week 3–4 (cadential control).
Short *taqsīm* figures targeting *Rast* and *Nahawand* cadences; use of open-string pivots as part of the instructional strategy.
- c) Week 5–8 (etudes & simulation).
Etudes after Salem Abdul Kareem adapted to *Fa* course roles; poetry-accompaniment simulation for register balance and text clarity. (see Figure 1 for open-string schematic)

4.4 Observed pedagogical effects (2005–2007)

- a) Bass-floor stability:
Stronger, cleaner pedals for *taqsīm* exposition and ostinati.
- b) Mid-register continuity:
Reported smoother stepwise/third-based motion for *Rast* and *Nahawand* phrases.
- c) Cadential intelligibility:
Clearer targets and closures under common fingerings.
- d) Ensemble blend:
Improved support for spoken-word/poetry due to bass–mid balance.
- e) Cognitive load:
Students reported easier mapping of modal centers when guided by open-string references. (Table 1 summarizes functional differences with the pre-2005 scheme.)

Analytical interpretation of these observations is developed in Section 5.

5. ANALYSIS & DISCUSSION

5.1 Functional argument: why *Fa* tuning works pedagogically

Fa tuning (low→high *F–C–D–G–C–F*) rebalances the oud’s functional register in ways that map directly onto early *maqām* training. The low *F* provides a stable pedal floor for tonic confirmation and ostinati, while the *C–D–G–C* middle corridor concentrates frequently used degrees within adjacent positions, reducing shifts for stepwise and third-based motion (Table 1). These placements

shorten the distance between tonic, dominant, and upper color tones, making cadences more intelligible for novices and easier to model in call-and-response (Touma, 1996; Marcus, 2007). Because no organological alteration is required, the gain is primarily didactic rather than mechanical: teachers can toggle demonstrations between layouts to expose functional contrasts without confounding setup variables (Racy, 2003). (See *Figure 1* for open-string schematic.)

5.2 Modal pathways opened by Fa tuning

a) *Rast*

In *Rast*, cadential clarity hinges on managing the neutral/raised third against a persistent tonic reference. With *Fa* tuning, open-string pedals (*F* or *C*) provide fixed anchors while the neutral third is shaped under adjacent fingerings, yielding audible contrasts without position jumps. The mid-register *C* acts as a gravitational “pivot,” allowing ascending phrases to lift into upper-course coloration (*G–C–F*) before descending closures on *F* or *C*. Students thus hear the third’s nuance in relation to a constant pedal, aligning perception with technique (Marcus, 2007; Racy, 2003). (*Table 1*.)

b) *Nahawand*

Nahawand demands secure dominant-to-tonic returns and minor-mode voice leading. The *C–D–G* spread concentrates common tetrachord fragments under the hand; cadential targets back to *F* or *C* can be rehearsed as short cells that reuse open strings as cadence beacons. This supports early acquisition of closure gestures and reduces the cognitive load of mapping multiple positions (Touma, 1996; Marcus, 2007). For ensemble contexts (e.g., poetry), the bass–mid balance of *Fa* tuning helps the instrument sit under spoken text while maintaining modal clarity (Raja Zulkarnain, 2025b). (*Table 1*; *Figure 1*.)

5.3 Comparison with pre-2005 Malaysian practice (uniform fourths)

The pre-2005 uniform-fourths layout (*B–E–A–D–G–C*) offered mapping consistency that some players found comfortable for scalar work. However, two trade-offs mattered in pedagogy:

- a) Bass-pedal availability. The location and response of bass drones made tonic confirmation and ostinati less immediate for beginners, which could blur cadential hearing in *Rast* and *Nahawand*.
- b) Mid-register continuity. Frequently used degrees for teaching sequences spanned slightly wider positional shifts, elevating cognitive load during early *taqsīm* attempts.

Fa tuning addresses both dimensions without requiring structural modification; most adjustments are related to player habituation rather than instrument alteration (*Table 1*). This explains why classroom effects appeared quickly after the April 2005 deployment despite unchanged nut/bridge/scale (Racy, 2003; Marcus, 2007).

5.3A Alternative Layouts and Pedagogical Trade-offs

It is important to acknowledge that the uniform-fourths layout (*B–E–A–D–G–C*) offers pedagogical advantages of its own, particularly in scalar symmetry and transpositional consistency across positions. Some instructors may prefer its intervallic regularity for ensemble standardization or for repertoire requiring rapid modulation. *Fa* tuning should therefore not be interpreted as universally superior, but as strategically advantageous for specific early-stage *maqām* training priorities, particularly tonic anchoring and cadential intelligibility in modes such as *Rast* and *Nahawand*. Framing the discussion in terms of trade-offs rather than hierarchy situates the intervention within broader debates on tuning and curriculum design.

5.4 Transmission model: modern channels as heritage work

Malay-world narratives often emphasize *longue durée* diffusion (trade routes, diaspora) (Touma, 1996; Racy, 2003; Raja Zulkarnain, 2024). The *Beit al-Oud* → ASWARA (2005) chain demonstrates a different but equally historical vector: contemporary pedagogical transmission, in which tuning, not merely repertoire or technique, is the transferable unit. The ASWARA implementation provides a verifiable institutional case through which *Fa* tuning entered Malaysian higher education, illustrating how a lineage-associated practice can be normalized through curriculum design (Shannon, 2006; Marcus, 2007). This supports a broader methodological stance: documenting modern teacher-to-studio transfers yields concrete, dateable nodes that complement *longue durée* diffusion narratives (Touma, 1996; Racy, 2003). (See Figure 2 for timeline.)

5.5 Classroom impacts observed (2005–2007) and their mechanisms

- a) Aural anchoring. Persistent pedals on *F/C* gave students reliable references while exploring neutral degrees; imitation drills stabilized quicker (Marcus, 2007).
- b) Cadential control. Open-string proximity reduced fingering clutter at closures, improving phrase punctuation in both *Rast* and *Nahawand* (Touma, 1996).
- c) Register management. The layout encouraged gradual intensification in the middle register before treble coloration, preventing premature tessitura inflation, a common novice pitfall (Racy, 2003).
- d) Ensemble blend. Poetry accompaniment benefited from a warmer low end with intelligible mids, aiding text clarity (Raja Zulkarnain, 2025b). These effects align with known pedagogical bottlenecks in *maqām* learning and provide a plausible causal chain from layout → gesture → perception.

5.6 Practical considerations and troubleshooting

- a) Transition period. Players habituated to uniform fourths may initially over-reach between the 5th→4th courses due to the P5→M2 jump; short cell drills that pivot on open *C/D* mitigate this quickly.
- b) Intonation focus. Because *Fa* tuning foregrounds pedals, small intonation drift on variable thirds becomes conspicuous; instructors should pair pedal work with slow intonation checks (Marcus, 2007).

- c) Repertoire adaptation. Etudes after Salem Abdul Karem adapt smoothly; prioritize pieces whose cadences sit on *F/C* to showcase benefits before tackling highly modulatory works (Racy, 2003).
- d) Strings/tension. Start with Pyramid *Laute* medium tension; adjust the top course by $\pm\frac{1}{2}$ gauge step for articulation preference; no setup change required (1027, 1014, 1010, 1005, 0.650, 0.525).

5.7 Limits, generalizability, and future documentation

This is a single-site, practice-led study anchored in ASWARA (2005–2007). While the claims are evidence-backed (certification, photographs, dated deployment), formal assessment sheets are incomplete. Nevertheless, the analytical generalization, that *Fa* tuning functions as a pedagogical lever for *Rast/Nahawand* training, rests on modal logic that is reproducible across instruments and studios (Touma, 1996; Marcus, 2007). Future work should: (i) archive primary artifacts (photo EXIF, certification scans) with DOIs; (ii) conduct comparative studios that A/B test layouts using standardized *taqsīm* rubrics; and (iii) extend analysis to additional modes (e.g., *Bayātī*, *Hijāz*) and seven-course variants.

Although this study is anchored in a single institutional site (ASWARA, 2005–2007), the analytical logic underlying *Fa* tuning, open-string pedal anchoring, mid-register concentration and cadential proximity, does not depend on geography. Studios introducing *maqām* pedagogy to new learner populations may observe comparable benefits where similar instructional priorities are present. Transferability therefore lies not in replication of context but in replication of pedagogical intent.

6. PRACTICAL GUIDE

6.1 Stringing and setup (58.5–60.0 cm scale)

- a) Baseline set: Pyramid *Laute* (Germany), medium overall tension; articulate but warm response.
- b) Gauges: (1027, 1014, 1010, 1005, 0.650, 0.525). If articulation on the 1st course feels too bright, reduce by $\sim\frac{1}{2}$ step in gauge; if sustain on the 6th course is lacking, increase by $\sim\frac{1}{2}$ step in gauge.
- c) Action & relief: Keep your usual Iraqi-style setup; no nut re-cut, bridge compensation, scale, or action change was required in the 2005 deployment.
- d) Settling protocol: After restringing to *Fa* tuning, play sustained *F–C* pedals for 10–15 minutes across two sessions to stabilize pitch stretch before fine intonation checks.

Why this matters pedagogically: Stable pedals on *F* and *C* are the anchor of *taqsīm* drills and cadential work (see Figure 1; Table 1).

6.2 Teaching sequence (first 6–8 weeks; adaptable)

Weeks 1–2: Tonal anchoring & pedals

- a) Long drones on *F* (6th) and *C* (5th/2nd) with slow dynamic swells.

- b) Call-and-response phrases (2–4 beats) that land on *F/C* closures.
- c) Ear tasks: identify tonic vs dominant while sustaining a pedal.

Weeks 3–4: Cadential control

- a) Short *taqsīm* cells for *Rast*: neutral/raised third contrasts over *F/C* pedals.
- b) Short *taqsīm* cells for *Nahawand*: dominant (*C*) → tonic (*F*) returns.
- c) Two-closure etudes (*AA'*) where *A* cadences on *C*, *A'* cadences on *F*.

Weeks 5–6: Etudes & linking phrases

- a) Etudes after Salem Abdul Kareem adapted to *Fa* course roles.
- b) “Color → closure” drills: ascend to upper-course color tones (*G–C–F*), then return via prepared cadences.

Weeks 7–8: Ensemble simulation (poetry/voice)

- a) Underlay spoken text; maintain *F/C* pedals; balance dynamics to preserve diction.
- b) Record–review sessions; mark points where pedals mask text, adjust right-hand weight and muting.

6.3 Repertoire/etude menu (illustrative)

- a) *Rast*: two tetra-cell etudes emphasizing neutral third shaping; one phrase-ladder (8–12 bars) with high-course coloration.
- b) *Nahawand*: dominant-preparation studies; minor-mode closure patterns with alternating *C/F* targets.
- c) Free *taqsīm* studies: 30–45s statements limited to the middle register before any treble expansion.

6.4 Micro-rubric for *taqsīm* (formative use)

Rate 0–2 on each item (total /10):

- a) Anchoring: tonic stability over pedals.
- b) Cadence clarity: closures intelligible on *F/C*.
- c) Register pacing: middle-first, treble only after clear preparation.
- d) Intonation: neutral/raised third control (*Rast*) or minor leading tones (*Nahawand*).
- e) Continuity: phrases connect logically without collapse of modal center.

(Use the same rubric to *A/B* compare *Fa* vs uniform-fourths demonstrations.)

6.5 Troubleshooting & adjustments

- a) Issue: Students over-reach 5th→4th courses (*P5*→*M2* jump).
Fix: Two-note pivots on *C–D* with metronome; add left-hand guide-finger touches.
- b) Issue: Cadences smear under long ring.
Fix: Light palm-mute at closure; rehearse “breath + release” to punctuate.
- c) Issue: Poetry accompaniment drowns text.
Fix: Shift pick angle; reduce bass weight; use mid-register arpeggios instead of full pedals.

6.6 Notes for luthiers/techs

- a) *Fa* tuning places no unusual torque demands at medium tensions on six-course *ouds*.
- b) Check nut slot polish on the 6th (*F*) and 5th (*C*) for smooth return after vibrato.
- c) If a player insists on heavier bass gauges, verify down bearing at the bridge to avoid wolfy response.

7. CONCLUSION

This study has examined how *Fa* tuning operated as a pedagogical design mechanism within Malaysian higher-education *oud* practice. Functionally, *Fa* tuning (*F–C–D–G–C–F*) repositions pedals and mid-register landmarks so that early *aqam* training, especially in *Rast* and *Nahawand*, benefits from clearer tonic anchoring, more intelligible cadences, and better register pacing, all without organological modification. Pedagogically, the tuning enabled a shift from repertoire-first teaching toward tuning-as-curriculum, where course architecture becomes a deliberate design choice shaping perception, technique, and assessment. In the Malaysian context, the *Beit al-Oud* → ASWARA (2005) pathway exemplifies contemporary transmission as heritage work: innovation arriving through teacher networks and studio practice rather than only through *longue durée* diffusion. The provided table, open-string schematic, timeline, and teaching sequence operationalize this for replication in other studios. Future work should (i) archive the 2005 materials with DOIs; (ii) run comparative studio studies using the micro-rubric to quantify learning gains; and (iii) extend analysis to additional modes and seven-course variants. The 2005 event functions as a verifiable node in Malaysia's *oud/gambus* timeline, creating a firm reference for subsequent scholarship and curriculum design centered on tuning-led *aqam* pedagogy.

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REFERENCES

- Abdul Kareem, S. (n.d.). *Etudes and lesson materials for oud* [Unpublished teaching materials]. Author's collection.
- Marcus, S. (2007). *Music in Egypt: Experiencing music, expressing culture*. Oxford University Press.
- Racy, A. J. (2003). *Making music in the Arab world: The culture and artistry of ṭarab*. Cambridge University Press.
- Raja Zulkarnain Raja Mohd Yusof. (2024). Gambus dalam sejarah Kesultanan Melaka. *Dewan Budaya*, 8, 44–47.
- Raja Zulkarnain Raja Mohd Yusof. (2025a). Intonaphobia: A culturally conditioned deficiency in microtonal perception among Malay gambus musicians in *maqām* traditions. *Melayu: Jurnal Antarabangsa Dunia Melayu*, 18(1), 77–95.
- Raja Zulkarnain. (2025b). The misidentification of Maqām Kurd as Maqām Bayātī among gambus players in Malaysia: Historical perspectives and theoretical implications. *The International Journal of Arts, Culture & Heritage (IJACH)*, 13, 205–236. <https://doi.org/10.62312/asw.ijach.13.8.2025>
- Shannon, J. H. (2006). *Among the jasmine trees: Music and modernity in contemporary Syria*. Wesleyan University Press.
- Touma, H. H. (1996). *The music of the Arabs* (L. Schwarz, Trans.). Amadeus Press.
- Beit al-Oud (Cairo). (2005, February–March). *Certificate of study* [Archival document]. (*Cited as evidence; not a published source.*)
- Yusof, R. Z. R. M., & Antar, M. S. (2005, April 8). *Email correspondence on Pyramid Laute string gauges for Fa tuning*. Author's personal archive.