

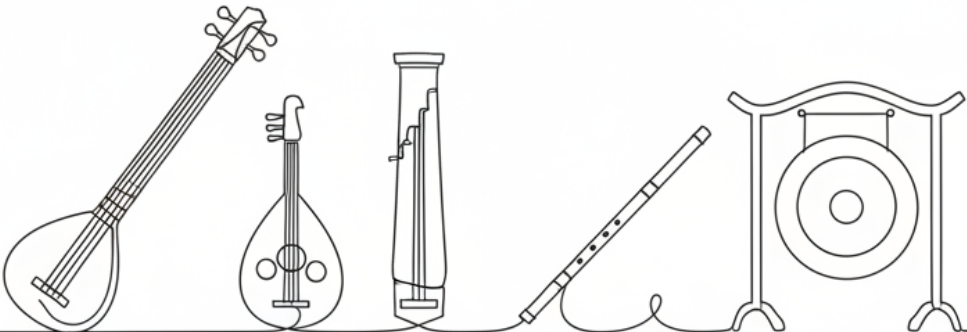
MUSIC HISTORY



A Concise History of Eastern Music

*Five Thousand Years of Sound,
from the Vedic Fire to the Digital Stream*

SHAJI RIZVI



SR PRO AUDIO

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www.srproaudio.com

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A CONCISE HISTORY OF EASTERN MUSIC

How to Use This Book

This book is built to be read three ways.

Straight through. The twenty-four chapters run in chronological order, in five parts, from the oldest layer of living music to the present. Ideas introduced early (the raga, the maqam, the notation problem) return later, so the whole is more than the parts.

By tradition. Each chapter stands on its own. If you came for Japan, read Chapters 3 and 13; for the Islamic world, Chapters 5 to 9 and 12; for India, Chapters 1, 4, 10, 17, and 19 to 24 carry the main line. Cross references point the way at every junction.

By ear. Every chapter closes with Listening Notes: three to five real recordings, chosen so that each one lets you hear exactly what the chapter just explained. The Listener's Guide at the back gathers a longer canon, tradition by tradition.

About the apparatus. Diagrams carry the theory: when the text mentions a scale, a rhythmic cycle, or a tuning, a nearby figure shows it. Sidebars hold profiles of instruments, people, and concepts. A word in **bold** is defined where it first appears and again in the Glossary. Native scripts appear beside each chapter title because these musics live in languages, and the shape of a word is part of its sound.

On spelling and dates. Foreign terms use plain romanization without scholarly diacritics: raga, not rāga. Dates follow the common era convention (BCE and CE). Where sources disagree or a tradition's own account outruns the evidence, the text says so plainly.

A CONCISE HISTORY OF EASTERN MUSIC

Preface

There is a moment, somewhere in the middle of any long listening life, when the map you have been using runs out. For me it happened in a studio, between takes, when a colleague played a recording of a dhrupad singer descending through a single note: not to the note, through it, as if pitch were a place with rooms inside. Nothing in my training explained what I was hearing. The training was not wrong. It was simply drawn to the scale of one continent.

This book is the map I wished I had that afternoon. It follows the classical and sacred musics of Asia, from the Vedic fire ritual to the streaming platform, through India, China, Japan, Korea, Persia, the Arab world, the Ottoman lands, and Southeast Asia. It is a history, so it moves through time: first principles, golden ages, empires, collisions, and the living present. But it is written for the ear, not the archive. Every system it describes, raga and tala, maqam and dastgah, the tunings of a gamelan, the grid of a Korean score, is explained with diagrams that show you what the words mean, and every chapter ends with recordings that let you hear it.

Three convictions shaped the writing. First, that these traditions are not exotic. They are rigorous, argued-over, professional musical systems, made by named people whose lives can be told. Second, that honesty beats romance: where a beloved story is legend, this book says so, and keeps the story anyway, because what a tradition chooses to believe about itself is also history. Third, that the traditions in this book are not museum pieces. Every one of them is alive, being taught, argued about, and remade right now, and the book treats the present tense as part of the story, not an epilogue.

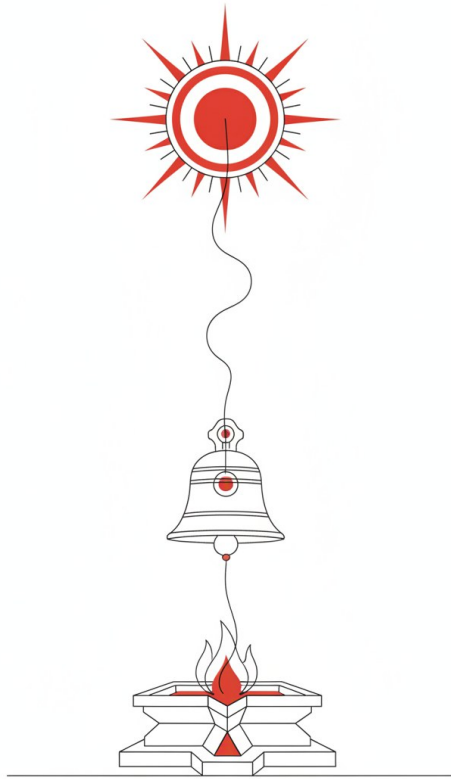
"Concise" is a promise about proportion, not depth. Whole libraries stand behind each of these chapters, and the further reading at the back points toward them. What this book offers is the connected whole: the way ideas about sound moved along trade routes, the way an instrument carries a theory inside its body, the way a mode can hold a civilization's idea of grief. If, somewhere in these pages, you put the book down and go looking for the sound itself, it has done its work.

Shaji Rizvi

2026

PART I

First Principles



Four ancient answers to one question: what is sound for? In the Vedic fire circle, at the Zhou court, and on the temple verandas of Nara and Kaesong, music becomes sacred technology, political philosophy, and the ordering of time.



FIRST PRINCIPLES — CHAPTER 1

Sound of the Divine: Music in Vedic India

A voice rises in a fire-lit clearing, three thousand years ago, and it has not stopped. The oldest living music on Earth begins with the conviction that sound itself is sacred.

C. 1500 BCE TO 200 CE

• THE GANGETIC PLAIN

नादब्रह्म

nada brahma · sound is the
divine

For twelve days in April 1975, a rice-farming village called Panjal, in the wet green interior of Kerala, held the oldest sound on earth. Inside a palm-thatched ritual enclosure, Nambudiri Brahmin priests had raised an altar of some thousand baked bricks, laid in five courses in the shape of a bird with its wings spread for flight. Around it they performed the Atiratra Agnicayana, the piling of the fire altar, a Vedic rite so old that the texts

prescribing it were already ancient when the Buddha walked the Gangetic plain. This performance had an unusual congregation. Alongside the priests' families sat cameras and tape recorders, and behind them stood Frits Staal, a Dutch logician turned Sanskrit scholar who had spent years persuading the community to let the world listen.

What the tapes caught sounds, at first hearing, like nothing else in this book. The chief singer of the rite's Samaveda side, the udgatri, chants with his eyes closed, and his melody moves in slow descending terraces, each tone held, bent at its edges, released. Vowels stretch until the words containing them dissolve. Syllables with no meaning at all, *ho* and *hau* and *hum*, surface in the middle of sacred verses and float there, unhurried. An unprepared listener may hear formlessness. The truth is the opposite. Every contour, every pause, every elongation is prescribed, and has been for roughly three thousand years.

Staal published his documentation in *Agni*, two enormous volumes that appeared in 1983, and spent the rest of his career arguing about what such survival means. The plainest fact, though, needs no argument. When the udgatri of Panjal sang, he performed the oldest music on the planet still passed, unbroken, from living teacher to living student. Not the oldest music we can reconstruct from bones and pictures: the oldest we can simply go and hear.

This chapter makes one claim, and the rest of the book stands on it. Vedic India's music survived three thousand years not by luck but by design. A culture convinced that sound itself is divine built, around that conviction, the most rigorous system of acoustic transmission human beings have ever devised, and everything Indian music later became, the *raga*, the *tala*, the teacher's house full of disciples, grew up inside its shelter. The fire at Panjal is where the story starts, because it never went out.

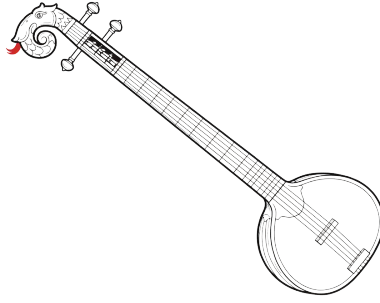
— The Veda That Must Be Sung

Music in India is far older than any text. The brick cities of the Indus Valley, which flourished from about 2600 to 1900 BCE, left behind a small bronze figure of a poised young dancer and seals that may depict drums and an arched harp. But the Indus script remains unread, and artifacts cannot tell us what anything sounded like. A history of living music can begin only where transmission begins, and in India transmission begins with the Vedas.

There are four. The Rigveda, the oldest, was composed between roughly 1500 and 1200 BCE: 1,028 hymns to fire, dawn, storm, and the pressed ritual drink called soma, arranged in ten books and running past ten thousand verses. The Yajurveda collects the formulas priests murmur while they work; the Atharvaveda gathers spells, charms, and speculations. The fourth is the one this chapter cares about most. The Samaveda, compiled between roughly 1200 and 1000 BCE, contains 1,875 verses, and all but about seventy-five of them come from the Rigveda. It is not a new book but a transformation: the Rigveda rearranged, stretched, and set to melody. Reading it on the page tells you almost nothing. It is a score whose music lives somewhere else entirely, and where it lives is the subject of everything that follows.

The sung realization of these verses is called **Samagana**, and it is the earliest organized music in South Asia that we can actually document. At the soma sacrifice, where the pressed juice of a mountain plant is offered to the gods through fire, the singing falls to a team of three: the prastotri, who opens; the udgatri, who carries the great central span; and the pratihartri, who answers. They deliver each saman in an architecture of five parts, from the opening prastava through the central udgitha to the closing nidhana (seven parts in fuller countings, with the introductory hum called himkara and the sealing pranava), dividing the phrases among themselves like relay runners passing a baton of breath. A verse is never simply pronounced. It is expanded from within: syllables lengthened, melodic figures inserted, and the meaningless stobha syllables woven through the words until sense yields to sound. None of it is improvised. Wayne Howard, the American scholar who spent a career transcribing these melodies school by school, showed how exactly each saman is fixed, down to the ornament. Three thousand years before the recording studio, the Samaveda was already what an engineer would call a fixed medium.

The Vedic soundworld was not all voices. The hymns mention the vana, an arched harp whose strings in one description numbered a hundred; the dundubhi, the great kettledrum the Atharvaveda addresses directly, as a being whose thunder drives armies into courage; and the venu, the bamboo flute that never afterward left Indian music. But instruments stood at the edge of the rite, ornaments to the real instrument, which was the trained human voice.



The veena of the Vedic texts was an arched harp, its strings rising from a boat-shaped resonator. The name later migrated to the fretted, plucked instrument of South India; the harp itself eventually vanished from Indian practice.

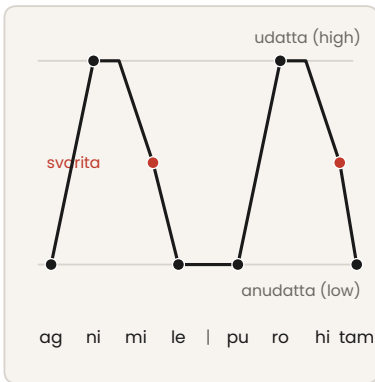
— Three Accents, Seven Notes

Where did the notes come from? Begin with how the Rigveda itself is recited, because recitation is not quite song. Classical recitation moves on three levels of pitch called *udatta*, *anudatta*, and *svarita*: the raised tone, the lowered tone, and a falling glide that binds them. These are accents of speech, the fossilized pitch contours of early Sanskrit, marked in manuscripts with small strokes above and below the syllables. Listen to Rigvedic recitation today and you hear a narrow ribbon of sound, three steps wide, rocking with the grammar of the sentence. Notice, too, what the system does not specify: any absolute pitch. There is no tuning fork in the Veda, no fixed frequency, only intervals measured from wherever a reciter's voice happens to settle. That relational understanding of pitch, in which the relationship between notes is real and the notes themselves are conveniences, would remain a defining trait of Indian music for the next three thousand years.

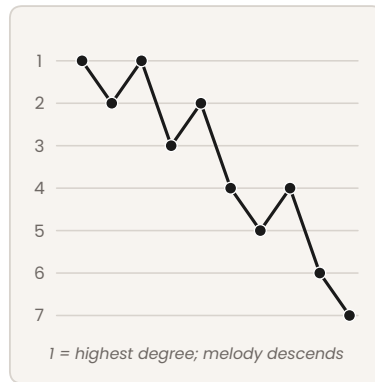
For a long time, popular histories, including an earlier version of this one, told a tidy story: the three tones grew to five, the five to seven, and the scale was born. Tidy, and wrong in an instructive way. The three accents belong to the recitation of the Rigveda and Yajurveda. Samagana is a different system, not a later stage of the same one. Saman melodies range across five, six, and seven degrees arranged in a generally descending order, and the singers' own manuals write them with numerals, the figure one standing

for the highest tone, the numbers climbing as the pitch falls. Set the two side by side, as the figure does, and the difference is plain: on one side a speech contour three steps wide, on the other a true musical scale. The germ of Indian melody lies in the saman ladder, not in the accent marks.

VEDIC ACCENT (3 TONES)



SAMAGANA (UP TO 7 TONES)



Two systems, not one: the three pitch accents of Rigvedic recitation rock within a narrow band, while Samavedic chant descends a wider ladder of five to seven degrees, written as numerals above the syllables.

You can run the comparison yourself in an evening. Play a Rigveda recitation and the pitch band is so narrow the ear reads it as heightened speech, prayer walking. Play a Samaveda recording and within seconds you are unmistakably inside music: sustained tones, contour, cadence, the long fall from the top of the ladder. The recordings at the end of this chapter pair the two. Hearing them side by side settles, better than any argument, a question scholars once debated in the abstract: song did not grow out of the accents by slow inflation. It arrived as its own art, with its own rules, and stood beside them.

Those numerals quietly complicate another legend: that ancient India had no notation. It had one, and declined to depend on it. The song-books of the Samaveda are aids for singers who already carry the melodies in the body, the way a shopping list serves someone who already knows how to

cook. Teachers guided students with hand gestures, the palm rising and falling through the degrees during lessons. Nothing about this was a failure to invent writing. It was a decision, renewed for a hundred generations, about where music properly lives.

By the time of the late Vedic phonetic treatises, the seven degrees had acquired names: shadja, rishabha, gandhara, madhyama, panchama, dhai-vata, nishada, contracted in singing to Sa, Re, Ga, Ma, Pa, Dha, Ni. Every Indian musician alive still sings those syllables. The parent word *svara*, note, grows from the root *svar*, which also shines inside the Sanskrit words for sun and heaven: a note is a small light. One traditional listing, given in the *Naradiya Shiksha*, matches the *svaras* to the cries of animals, the peacock for Sa, the bull for Re, the goat for Ga, the cuckoo for Pa, and other texts shuffle the menagerie, so the details are folklore rather than acoustics. But it is telling folklore. It treats the scale as part of nature's inventory, one thread in a web of correspondences binding sound, season, animal, and god. The *svaras* were not just pitches. They were nodes in a cosmic network.

— Sound as God: Nada Brahma

Why should chant carry this much machinery? Because of what the chanters believed sound to be. The belief is compressed into the phrase **nada brahma**: *nada*, sound or vibration; *brahma*, referring here not to the four-headed creator god but to Brahman, the ground of all reality in Vedic philosophy. Sound is the divine. Not a symbol of it, not a road toward it: an actual presence of the absolute in the vibrating air. Vedic thinkers held this position the way physicists hold positions, seriously and with consequences.

The syllable Aum is the doctrine at its most concentrated. The *Man-dukya Upanishad*, the shortest of the principal Upanishads and among the very latest, composed near the end of the first millennium BCE and perhaps as late as the early centuries CE, opens by declaring that Aum is all this: everything past, present, and future folded into one resonant syllable. The text then takes the sound apart. Its three phonetic elements, A, U, and M, map onto waking, dream, and deep sleep, and beyond them lies a fourth element that is not a sound at all: the silence after the syllable, the state past naming. Anyone who has sung a long note in a quiet room has met that silence. The Upanishad simply took it seriously.



Aum in Devanagari. The Mandukya Upanishad hears in it three sounds
and the silence after them: waking, dream, deep sleep, and what lies
beyond naming.

It is easy to file all this under mysticism. It is more accurate to see a working theory with engineering consequences. If sound is divine, then sound must be exact: a mispronounced mantra is not a stylistic lapse but a ritual hazard, and the sciences of exactness, phonetics, metrics, grammar, become sacred disciplines, formalized as the six limbs of the Veda that the sidebar maps. If sound is divine, its transmission cannot be entrusted to casual means. And if sound is divine, then singing is not display for an audience but an operation performed on reality. For Vedic practitioners, music was never entertainment. It was technology for touching the divine.

*For Vedic practitioners, music was never
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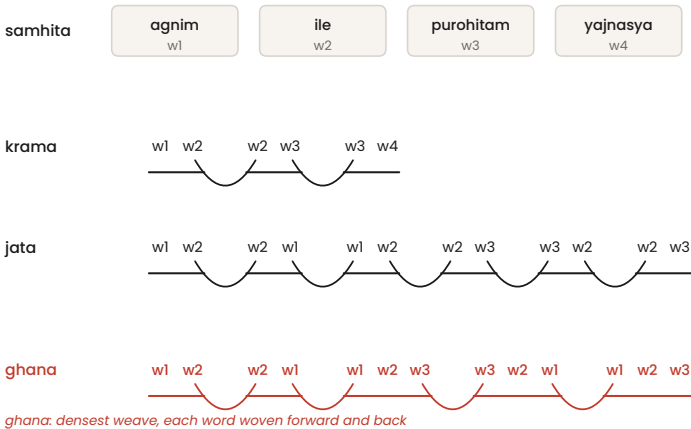
--- The Body as Archive

The channel this culture built for its sound was a relationship. In the **guru-shishya parampara**, the lineage of teacher and disciple, a student did not take lessons; he took up residence. Years in the teacher's household, tending the fires, memorizing before dawn, absorbing along with the texts an

entire orientation toward sound: its ethics, its purpose, its weight. The relationship ran deeper than instruction. A shishya took on the guru's phrasing and posture, and with them the tradition's unwritten constitution: what music is for, when silence outranks sound, why this knowledge must be earned rather than purchased. Much of it was never spoken at all; it traveled by imitation, correction, and years of shared mornings. Parampara means succession, one hand closing over another without a gap. Chapter 21 follows this institution into the age of the conservatory and the hard drive. Here, at its origin, it had one overriding job: perfect copying.

The copying methods still astonish. A student first learned the *samhita* patha, the verse as continuously spoken. Then the *pada* patha, the same verse dissolved into its separate words. Then the *krama* patha, the words in overlapping pairs: first with second, second with third, third with fourth. Beyond these lay the *vikriti* pathas, a family of deliberately altered recitations that scramble the text in fixed patterns, among them *jata*, the braid, and the summit of the art, **ghana patha**, the dense recitation: words one and two, then two and one, then one two three, then three two one, then one two three again, advancing pair by pair through the entire text. Recite a hymn in *ghana* and you have spoken every word forward, backward, and forward again against both of its neighbors. A master who can sustain this across a whole Veda earns the title *Ghanapathi*, and such masters are alive today.

PATHA: THE RECITATION PERMUTATIONS



The ghana weave applied to a three-word phrase: each pair of words runs forward, backward, and forward again before the next word joins, so every word is tested against its neighbors in both directions. An error cannot hide.

An audio engineer recognizes the design at once: redundancy coding. Store a signal several times, in transforms of itself, and corruption announces itself, because an error introduced in one weave collides with the intact copies in the others. The system turned every reciter into his own checksum. The results are measurable. Recitation lineages separated by a thousand kilometers and many centuries agree syllable for syllable, accent for accent, a fidelity the manuscript cultures of the same era cannot approach. The Vedas were preserved the way DNA is preserved, by copying with error correction, and the storage medium was living human memory. The body itself became the archive.

The body itself became the archive.

Archives have doors, and doors have keepers. This one was locked. Full Vedic transmission was reserved for males of the so-called twice-born castes, in practice above all for Brahmin boys, who began training around the age of eight. Women were shut out by the classical period, and shudras, the laboring castes, were barred even from listening: later legal texts imagined punishments of grotesque cruelty for the wrong ears absorbing the sacred sound. The perfection of the archive and the narrowness of its gate were one design, not two. An honest history holds both facts together: a feat of transmission without parallel anywhere, and a wall around it. Who gets to sing is a question this book will keep asking all the way to its final chapter.

CONCEPT

The Six Limbs of the Veda

To recite correctly, you must know more than the words. Vedic education

grew six auxiliary sciences, the Vedangas, the limbs of the Veda: Shiksha (phonetics), Chandas (metrics), Vyakarana (grammar), Nirukta (etymology), Kalpa (ritual procedure), and Jyotisha (the calendrical astronomy that fixes when a rite may happen).

Two of the limbs are musical. Shiksha, the science of articulation, produced treatises analyzing accent, syllable length, and the organs of speech with a precision Europe would not match until modern phonetics; each Vedic school kept its own sound manual, the Pratishakhya. Chandas classified the meters, patterns of long and short syllables: the Gayatri of three eight-syllable lines, the Anushtubh of four eights, the Trishtubh of four elevens.

Sanskrit meter is quantitative, built from durations rather than stresses, which makes Chandas a rhythmic theory in embryo. The habit of measuring time in syllables prepared the ground for tala, the cyclic theory of time that Chapter 4 unfolds.

— The Seeds of Raga

A raga, the organizing idea of all later Indian melody, is not a scale but a melodic personality: a set of notes bound by rules of movement and emphasis, carrying a recognizable emotional climate, so distinct that a skilled performer can evoke a raga's identity with just a few notes, the way a skilled writer can evoke a character with a single well-chosen detail. Chapter 4 takes that machine apart bolt by bolt. The question that belongs here is older: where does the sensibility come from?

Look again at the samans. The tradition collects them in songbooks, the gramageya-gana, melodies for the village, and the aranyageya-gana, melodies for the forest, and assigns each melody its ritual station: this saman for this offering, at this hour, in this season. Each has its own contour, its own way of circling and landing, its own affective temperature. No theory yet names any of this. But the underlying conviction, that a melody is an individual with duties and moods rather than a mere arrangement of intervals, is already complete. The sensibility precedes the vocabulary by more than a thousand years.

Melody was one seed; rhythm was the other. Sanskrit is a quantitative language: a long syllable and a short syllable are genuinely different sounds, not stylistic shadings, and Vedic verse is built from fixed patterns of the two. Reciting a hymn in the wrong meter was not an aesthetic lapse but a ritual defect, potentially a dangerous one, which is why metrics earned its seat among the sacred sciences. A culture that trained every

priest to feel duration with this precision was preparing, without knowing it, the ground for tala, the cyclic architecture of musical time that Chapter 4 assembles. When a modern tabla player subdivides a sixteen-beat cycle in his sleep, he is the distant heir of reciters who measured holy speech in syllable-lengths a hundred generations ago.

Honesty asks for one caution. The documented pedigree of the raga runs through the ritual art music called *gandharva* and the melodic classes of the early treatises, not in a straight line back to the chanted *saman*; the *Samaveda* is raga's grandparent by disposition more than by descent. What Vedic chant established was deeper than any genealogy: pitch understood relationally, melody understood as a bearer of sanctity and feeling, phrase understood as identity. Those three commitments never left Indian music. They are in it tonight.

— What the *Natyashastra* Knew

Somewhere between 200 BCE and 200 CE, in the centuries when the Vedic world was becoming the classical one, the ideas scattered through ritual practice were gathered into a book. The *Natyashastra*, attributed to the sage Bharata Muni and certainly the work of generations, is a manual of theater in thirty-six chapters: acting, staging, poetics, costume, and, in chapters twenty-eight through thirty-four, the first surviving system of Indian music. It distinguishes *gandharva*, the ritually potent art music offered to the gods, from *gana*, the songs that serve the play, a distinction its compact contemporary, the *Dattilam*, treats with even greater rigor.

The system is a machine of nested frameworks. Two *gramas*, master tunings named for their base notes *shadja* and *madhyama*, differ by a single microtonal step. From each *grama*, seven *murchhanas* are generated by starting the note sequence on each successive degree: fourteen modal frames in all. Overlaid on these are eighteen *jatis*, seven pure and eleven mixed, melodic classes with prescribed strong notes, weak notes, openings, and endings, each tied to dramatic feeling. A *jati* is not yet a raga, but hold one up to the light and the raga's silhouette shows through. Beneath everything lie the twenty-two *shrutis*, the microintervals Bharata established with a famous experiment on two *vinas*, which Chapter 4 rebuilds in working detail.

How was all this taught? Not from scores. The *Natyashastra's* world had no performance notation; what it had was the human hand. Teachers

indicated pitch and ornament with codified gestures, the palm rising and falling through the degrees, fingers marking the svaras, a live conducting language whose descendants survive in the hand-signals of South Indian solfège teaching today. Writing existed; the theorists simply saw no reason to trust melody to it. A page can hold a doctrine, they reasoned, but only a body can hold a phrase, with its weight, its curvature, its breath. Chapter 8 returns to this choice, and to what the East's long wariness of notation preserved and what it cost.

The treatise's deepest legacy is not a tuning but a psychology. Its sixth chapter propounds *rasa*, literally juice or flavor: the theory that art exists to produce distilled emotional states in its audience. Bharata names eight: *shringara* the erotic, *hasya* the comic, *karuna* pathos and compassion, *raudra* fury, *vira* heroism, *bhayanaka* terror, *bibhatsa* disgust, *adbhuta* wonder. Later commentators, above all the Kashmiri philosopher Abhinavagupta around the turn of the first millennium, argued a ninth into the canon: *shanta*, peace. Lewis Rowell, whose *Music and Musical Thought in Early India* remains the standard modern guide, observes that this tradition treats music less as a science of sound than as a science of feeling, and the observation names the entire future. *Rasa* is the reason a *raga* will one day keep a mood, a season, an hour. The *Natyashastra* did not merely record a music. It declared what music is for.

— A Tradition That Refuses to Die

The Vedic soundworld is not a ruin to excavate. In Kerala, the Nambudiri Brahmins preserve the most archaic recitation styles known, including the rare Jaiminiya school of the Samaveda, and their 1975 *Agnicayana* at Panjal very nearly did not happen: the rite is ruinously expensive, the trained families few, and the priests faced hard questions about performing before outsiders at all. They adapted where conscience demanded, substituting offerings of rice flour for the goats the old texts require, and sang everything else complete. Staal's team recorded it all, and the resulting film and the two *Agni* volumes remain the fullest documentation of a Vedic ritual ever made. The melodies on those tapes match, in structure and style, what the ancient manuals describe.

In November 2003, UNESCO proclaimed the tradition of Vedic chanting a Masterpiece of the Oral and Intangible Heritage of Humanity, and in 2008 the tradition moved onto the Representative List where the world's

protected practices now live. The listing recognizes continuity, and also fragility. Full training takes over a decade, the reciting families number a few thousand, and the ritual economy that once endowed them is gone. Yet in Vedic schools across the subcontinent, boys still sit in rows before a teacher, swaying as they repeat, their sessions still governed by the old sequence of pathas, their mistakes still corrected by ear and by hand. Preservation, here as everywhere in this book, is a verb in the present tense, performed or not performed every single year.

Be precise about what continuity means. The Samagana sung this year is certainly not note-for-note identical with the Samagana of 1000 BCE; an oral tradition is a living thing, not a tape recorder, and even error-corrected copying drifts. What survived is the structure beneath the notes: the relational treatment of pitch, the embodied pedagogy, the conviction that sound is sacred and phrases have identities. Judged as a recording, three thousand years of transmission is imperfect. Judged as an institution, nothing else in the history of music comes close.

Everything ahead grows from this root. The theory of raga and tala, assembled in Chapter 4, formalizes intuitions the udgatri already sang. The court musicians of Chapter 10 and the gharana households of Chapter 21 are the guru-shishya parampara wearing new clothes. This is not a museum tour. Every tradition in this book is alive, and this book teaches you to hear it. So end where we began, in the enclosure at Panjal: the bird-shaped altar, the smoke, the tape reels turning, and a voice descending its ancient terraces. Find the recordings below and listen for the moment the syllables give up meaning and become pure shaped sound. That sound is the root of everything this book is about. Everything else is commentary.

LISTENING NOTES

- ♪ **Nambudiri and other Vedic reciters, The Four Vedas (Asch Mankind Series, from Frits Staal's field recordings)**

Living recitation from the source communities; hear the narrow three-accent ribbon of the Rigveda beside the terraced descent of Samagana.

- ♪ **Alain Danielou (recordist), India: Vedic Recitation and Chant (UNESCO Musical Anthology of the Orient)**

A close, clear document of the chant styles this chapter describes; notice how syllable length, not stress, carries the rhythm.

♪ **The Dagar Brothers, Shiva Mahadeva**

Dhrupad, the concert genre nearest this chapter's root; the alap unfolds from meaningless sacred syllables exactly as a saman does. Chapter 10 tells dhrupad's story.

♪ **M.S. Subbulakshmi, Sri Venkateswara Suprabhatam**

The most beloved Sanskrit recitation on record: dawn verses in a voice of perfect placement, quantitative meter doing the work of a drum.





FIRST PRINCIPLES — CHAPTER 2

Harmony and Order: Music in Ancient China

When Confucius heard the right music, he forgot the taste of meat for three months. In ancient China, a well-tuned bell was proof that the state itself was in tune with heaven.

C. 7000 BCE TO 221 BCE

• THE YELLOW RIVER VALLEY

樂

yue · music, joy, harmony

He is about thirty five years old, a scholar of middling rank from the small state of Lu, and he is in exile. Political violence at home has driven him east to Qi, where he has found a post in a nobleman's household and, at the ducal court, something he did not expect to find anywhere. The musicians of Qi preserve the Shao, the ceremonial music that tradition ascribes to the sage king Shun, and one day, around 517 BCE by the traditional chronology, they perform it for him: bronze bells and stone chimes ranked on lacquered

frames, silk strung zithers, mouth organs, drums, lines of dancers wheeling with feathers and flutes in their hands.

His name is Kong Qiu. The West will come to call him Confucius. What the Analects records of this encounter is one of the most quoted sentences in Chinese literature: for three months afterward, he did not notice the taste of meat. I never imagined, he said, that music could reach this.

It is tempting to file the story away as pious embellishment, the kind of thing disciples attach to a beloved teacher. Ancient China did not file it away. It built a civilization's worth of theory on the conviction the story dramatizes: that music is a force acting directly on the inner life of a person, and through persons on families, states, and the cosmos itself. That conviction is this chapter's subject. In the China taking shape along the Yellow River, music was never entertainment first. It was a technology of order, and the people who believed this pursued the mathematics, the metallurgy, and the philosophy of sound further than anyone else of their age.

— The Sound That Stopped Confucius

The conviction begins inside a single written character. The graph 乐 is read two ways: pronounced yue, it means music; pronounced le, it means joy. One sign, two readings, and the ambiguity is the argument. To the thinkers of the Zhou dynasty, **yue** was not a pastime that happened to produce pleasure. It named a condition in which sound, feeling, and social life are correctly aligned, something closer to the audible expression of cosmic order than to anything covered by the English word music. The movements of stars, the turn of the seasons, the rise and fall of dynasties: all had their sonic counterparts, and music was the art of bringing human life into phase with those deeper patterns.



The character read yue means music and read le means joy: one graph carrying the tradition's central claim, that a well-ordered sound and a well-ordered heart are the same condition.

The fullest statement of this philosophy survives in the Yueji, the Record of Music, a chapter of the Book of Rites compiled under the Han dynasty from older materials. Music, the Yueji says, arises when the human heart is moved by the world outside it; what we sing is a report on what we feel, which makes a state's songs a report on its condition. And music has a partner. Ritual differentiates: it marks the distinctions of rank, age, and relationship that keep a society legible. Music harmonizes: it draws the differentiated back into shared feeling. A society without ritual dissolves into confusion, because no one knows where they stand. A society without music hardens into coldness, because no one feels bound to anyone else. Government, in this view, is conducted partly in sound.

Kenneth DeWoskin, whose study of early Chinese aesthetics remains a standard guide, has shown how thoroughly the classical texts made music the model art, the one through which early China thought about all the others. It followed that listening was a form of intelligence gathering. Wise envoys were said to judge a neighboring state by its songs before its armies: sorrowful music meant decline, wild music meant a society losing its center. Confucius himself drew the practical conclusion. The music of Zheng, he warned, was licentious and should be banished, a judgment that sounds comically severe until you notice what it assumes: that a popular tune can bend the character of the people who hum it.

The tradition eventually gave the two sides of this argument names that will run through the rest of this book. **Yayue**, elegant music, was the ritual

repertoire of courts and temples, measured, moral, and correct. **Suyue** was the common music of banquets, markets, and pleasure, everything people actually preferred. The Yueji preserves the confession of Marquis Wen of Wei, who admitted to a disciple of Confucius that the ancient ritual music made him fight to stay awake, while the new tunes of Zheng and Wei never tired him. The candor is disarming, and the tension is permanent. Every musical culture in this book lives somewhere on the line between what it reveres and what it enjoys; ancient China drew that line first, and darkly suspected which side would win.

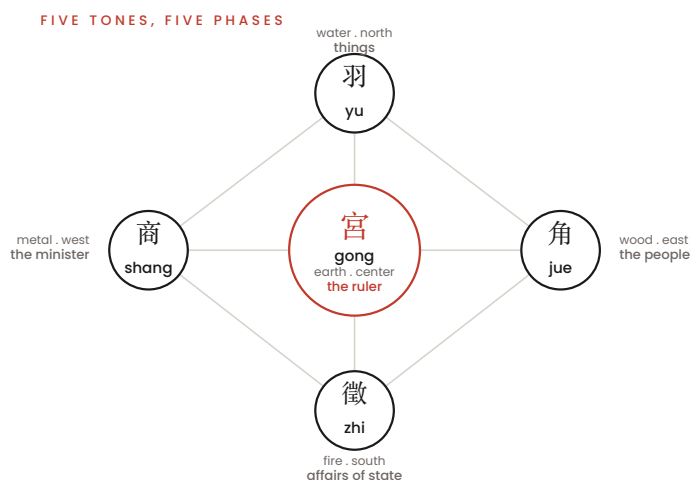
— A Scale That Maps the Cosmos

Long before any of this was theory, it was bone. In the 1980s, archaeologists excavating Jiahu, a Neolithic settlement in Wuyang County, Henan, occupied from roughly 7000 to 5700 BCE, began finding flutes in the graves: slender tubes cut from the wing bones of the red-crowned crane, drilled with five to eight fingerholes. Six emerged complete and playable, with fragments of some thirty more. In 1999 the journal *Nature* published a tonal analysis of the best preserved, a seven hole flute nine thousand years old, and reported that it still sounds a stable series of distinct pitches, close to a six or seven note scale. Caution is in order, since a set of test tones is not a notated melody, but the essential point survives every hedge: these are the oldest complete, playable, securely dated multinode instruments known anywhere, and they show people on the Yellow River plain making careful decisions about pitch millennia before anyone wrote a word about it.

When theory did arrive, it organized itself around five notes. The pentatonic degrees were named gong, shang, jue, zhi, and yu, and they worked much as do, re, mi work in Western solfege: relative positions, not fixed frequencies, a scale you could build on any starting pitch. Two altered degrees, bianzhi and biangong, extended the five to seven when a melody needed them. None of this is unusual machinery; most of the world's folk melodies live comfortably inside five notes. What ancient China did with the pentatonic scale is another matter, because each degree was wired into the theory of the five phases, the wu xing.

The five phases, wood, fire, earth, metal, and water, were less substances than stages in a continuous cycle of transformation, and everything in the universe could be mapped onto them: seasons, directions, colors, flavors,

organs of the body, and, crucially, tones. In the scheme the Yueji preserves, gong belonged to earth and the ruler, shang to metal and the minister, jue to wood and the people, zhi to fire and the affairs of state, yu to water and the world of things. Other texts shuffle the details, but the principle never moves, and the wheel in the figure lays it out: the scale was a model of society, and a disordered tone diagnosed disorder in the domain it governed. A muddy gong meant trouble at the top. The pentatonic scale, which sounds to modern ears like a natural and somewhat obvious structure, was in ancient China a map of the cosmos.



The five tones on the wheel of the five phases: gong with earth and the ruler at the center of the scheme, shang with metal, jue with wood, zhi with fire, yu with water, so that a fault in any tone pointed to a fault in its domain.

This is why tuning carried moral weight. A scale that maps the cosmos must be built on a reliable foundation, and the search for that foundation produced the most rigorous strand of ancient Chinese thought about sound: the mathematics of the Yellow Bell.

— The Mathematics of the Yellow Bell

The *Lüshi chunqiu*, an encyclopedia compiled around 239 BCE, tells the story this way. The Yellow Emperor, Huangdi, sent his minister Ling Lun

west to the mountains, where he cut lengths of bamboo and listened to the calls of the male and female phoenix, six tones from each bird, and fixed from them the twelve standard pitches. The tale is legend, recorded two millennia after the era it claims to describe, and it should be enjoyed as legend. But like many origin myths it encodes real information: that Chinese theory derived pitch from the measured lengths of resonating tubes, that it recognized a twelve tone gamut behind the five note scale, and that it understood the whole enterprise as discovery rather than invention. The emperor did not create music. He discovered the music that was already written into the structure of the universe.

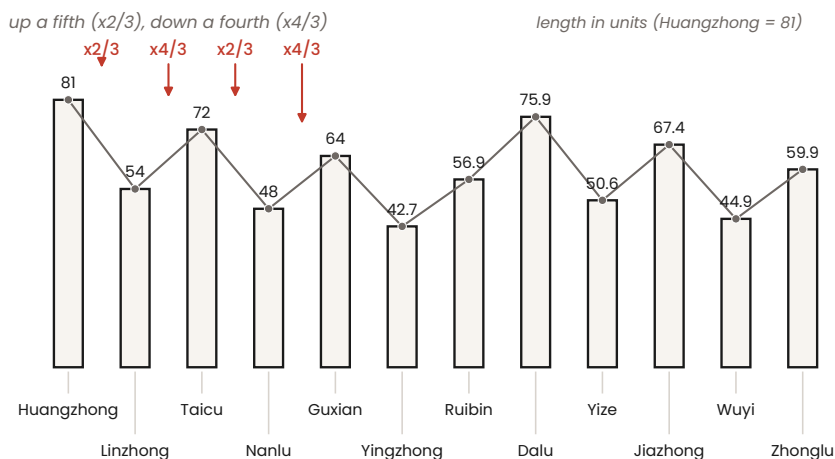
*The emperor did not create music. He
discovered the music that was already written
into the structure of the universe.*

The twelve pitches were the lü, and the first among them was the huangzhong, the Yellow Bell, the foundation tone from which the others were generated. Their names ring like a bronze inventory: the Yellow Bell, the Great Regulator, the Forest Bell, the Answering Bell. They formed a set of reference standards rather than a playable scale, the fixed pegs from which a court could hang its gong on any degree it chose, the way a modern orchestra hangs everything on A.

The generating procedure is where admiration is genuinely owed, because it is real arithmetic and it survives. The method was called **sanfen sunyi**, subtract or add one third. Begin with a pipe of length eighty one units sounding the Yellow Bell. Remove one third of its length: the remaining fifty four sounds a perfect fifth higher. Add one third to that: seventy two, a perfect fourth lower. Subtract a third again: forty eight. Add a third again: sixty four. Five numbers, 81, 72, 64, 54, 48, and you have the five degrees, gong, shang, jue, zhi, yu, in tune with one another by construction. The pentatonic numbers appear first in the Guanzi, and the full procedure, continued through twelve alternations to generate all twelve lü, is set out in the Lüshi chunqiu and again in the Huainanzi of 139 BCE. It is precisely the arithmetic of the Pythagorean tradition, a scale spun from pure fifths and fourths, arrived at on the other side of the world.

And it carries the same flaw. Follow the spiral in the figure through all twelve steps and the thirteenth pitch should land exactly an octave above the starting tone. It lands sharp, by about a quarter of a semitone, and no sequence of pure fifths and fourths will ever close the gap. Chinese theorists heard that overshoot early and worried at it for two thousand years, generation after generation adjusting, recalculating, proposing new pipe lengths. The spiral was finally closed in 1584 by a Ming prince with an abacus, and Chapter 11 tells that story; readers keeping score should note that he got there decades before Europe.

SANFEN SUNYI: GENERATING THE 12 LU



Subtract a third of the pipe's length to rise a fifth, add a third to fall a fourth:
 twelve alternations generate the twelve lü, and the spiral misses its octave
 by a quarter of a semitone, the gap that drove two millennia of tuning
 theory.

One more measure of how seriously the state took its foundation tone: the huangzhong was not only a musical standard. In Han practice, the dimensions of the Yellow Bell pipe anchored the empire's weights and measures, its length defining the standard foot, its capacity in grains of millet defining units of volume and weight. Retuning the fundamental meant recalibrating the world. A dynasty that got its pitch wrong had, quite literally,

gotten its measurements of reality wrong, which is why new dynasties convened commissions on pitch the way modern states convene constitutional conventions.

— Songs of the People: the Shijing

Against all this cosmic architecture, the oldest surviving Chinese songbook is startlingly human. The Shijing, the Book of Songs, collects 305 song texts from roughly the eleventh to the seventh centuries BCE: 160 Guofeng, the airs of the states, 74 minor odes and 31 major odes for the feasts of the aristocracy, and 40 solemn hymns for temple sacrifice. Every one of them was sung. The music is entirely lost, and the words remain, which makes the anthology both the beginning of Chinese poetry and a catalogue of vanished melody.

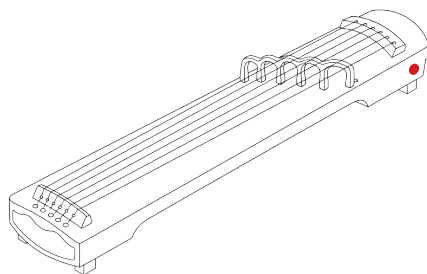
The airs are the ones that still land. A woman waits for a husband gone to war. A young man watches a girl gathering plants along the river and cannot stop thinking about her. Farmers grind through the harvest; soldiers curse the road. Tradition holds that Confucius himself selected the 305 from some three thousand, and the attribution is doubted by modern scholarship, but his devotion to the collection is not. He told his son that a person who had not studied the Songs had nothing to say, and his summary of self-cultivation gave music the last word: be roused by the Odes, established by ritual, perfected by music. The sequence matters. Poetry wakes the feelings, ritual gives them form, and music completes the person. For Confucius the Songs were not literary monuments; they were moral training, and singing them properly shaped the singer.

The Shijing also quietly corrects the impression its own commentators created. Because the texts that survive from ancient China were written by and for a literate elite, the record overstates the altar and understates the field. The anthology's range, from courtship song to temple hymn in a single collection, shows music running through every level of Zhou life, and it stands in for everything the record omits: the wine songs, the work songs, the lullabies that leave no trace. Ordinary people sang because singing eased labor, marked weddings and funerals, and felt good. The great intellectual edifice of Confucian music theory was built on top of this bedrock of ordinary musical life, not instead of it.

— The Instruments of the Eight Materials

The orchestra that served the ritual side of this culture was itself a cosmological statement. Ancient taxonomy sorted instruments not by how they made sound but by what they were made of, into eight classes called the **bayin**, the eight sounds: metal, stone, silk, bamboo, gourd, clay, skin, and wood. Bronze bells stood for metal, chimestones for stone, zithers for silk, flutes for bamboo, the mouth organ for gourd, the ocarina like xun for clay, drums for skin, and wooden clappers and scrapers for wood. A full ritual ensemble sounded all eight, because a rite addressed to the whole cosmos required an orchestra assembled from the whole material world.

Silk meant zithers, and chief among them the qin, later called the guqin: a slender lacquered board strung with seven twisted silk strings, played flat before the player. Legend ascribes its invention to the culture hero Fuxi, which is genealogy as compliment, not history; instruments of qin type appear in tombs from around the fifth century BCE. From early on it was the instrument of the cultivated individual rather than the ensemble, quiet enough that its natural audience was one friend or none, and its purpose was understood to be as much meditative as musical: a technology for ordering the inner life. It threads through this whole book, and its Ming dynasty golden age of printed handbooks belongs to Chapter 11.



The guqin: seven silk strings over a lacquered soundboard, played with both hands directly on the string, its harmonics, open tones, and long sliding notes quiet enough to be meant for one listener.

INSTRUMENT

The Guqin, Instrument of Sages

Seven strings of twisted silk run the length of a hollow lacquered body about 120 centimeters long. There are no frets and no bridges along the string path; instead, thirteen studs of mother of pearl, the *hui*, mark the harmonic nodes, and the player's left hand stops, presses, and slides while the right plucks. The instrument speaks in three voices: open strings, chiming harmonics touched at the *hui*, and stopped tones that can glide through long, vocal bends.

The qin was the first of the four arts of the scholar, ahead of go, calligraphy, and painting, and its literature insists that what it produces in the player outranks what it produces in the air. The poet Tao Yuanming, who lived from 365 to 427 CE, kept a plain qin with no strings at all. When wine and mood aligned, his early biographers say, he would finger silent music upon it, asking why a person who had found the flavor within the qin should need the sound of its strings.

The extreme position never became the mainstream, but it marks the pole toward which qin culture always leaned: an instrument for ordering the self, on which silence was one of the registers. In 2003 UNESCO proclaimed the guqin and its music a masterpiece of humanity's intangible heritage.

The qin's classical partner was the *se*, a larger zither typically strung with twenty five strings. The two were played together in ceremony so habitually that the *Shijing's* phrase, the qin and *se* in harmony, became the standard literary figure for a good marriage. The *se* faded from common use after the Tang dynasty, but its sound survives in the metaphor, which is its own kind of transmission.

Gourd meant the *sheng*, and the *sheng* deserves a moment of wonder on engineering grounds alone. A bundle of bamboo pipes stands in a wind chest, each pipe fitted with a small free reed of metal that speaks on both exhale and inhale. Because several pipes can sound at once, a single player can produce chords, making the *sheng* one of the earliest polyphonic wind instruments anywhere and giving Chinese ensembles a built-in harmonic halo. When European travelers carried *sheng* home in the eighteenth century, the free reed principle seeded a whole family of Western instruments, the harmonica and the accordion among them, which makes the *sheng* the improbable ancestor of the Parisian cafe soundtrack.

Stone meant the *bianqing*, a rack of chimestones cut from resonant lime-

stone, qing being simply the word for chime. And metal meant bells: the **bianzhong**, graduated sets of bronze bells hung on frames and struck with mallets, the deepest voice of the ritual orchestra and the most prestigious object a court could own. Everything this chapter has described so far, the cosmology, the mathematics, the moral theory of sound, converged on the casting of bells. For most of history that claim rested on texts. Then, in 1978, it came out of the ground.

— Sixty-Five Bells Under the Earth

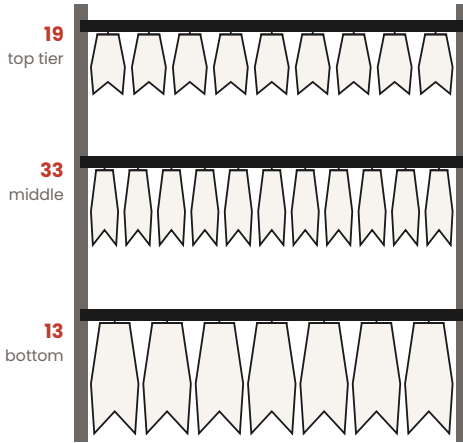
In the autumn of 1977, an army construction crew leveling a hillock called Leigudun, near Suizhou in Hubei province, hit soft earth where the ground should have been hard. What the archaeologists opened in 1978 was the intact tomb of Marquis Yi of Zeng, ruler of a minor state in the orbit of the great southern power of Chu, sealed around 433 BCE. The burial chamber had flooded early and lain undisturbed beneath the water for some twenty four centuries, and when the diggers pumped it out, they found, still hanging on its L shaped rack of bronze and timber, a complete set of sixty five bronze bells.

The scale of the find is difficult to overstate. The rack rises in three tiers and carries some two and a half tons of bronze; the largest bell alone weighs about 204 kilograms, and the whole set spans around five octaves. A separate bell hanging at the center bears a dedication from King Hui of Chu, dated to 433 BCE, the anchor that fixes the tomb in time. Around the bells lay a buried orchestra: 125 instruments in all, including a thirty two stone bianqing, se zithers, sheng, panpipes, chi flutes, drums, and a ten string ancestor of the qin. In the adjoining chambers were the coffins of twenty one young women, most likely the marquis's musicians and dancers. The ensemble was interred entire, so that the dead man could keep listening.

The bells themselves rewrote the history of acoustics. Each has an almond shaped cross section rather than a round one, and that geometry gives every bell two distinct tones: a sui tone struck at the center and a gu tone struck at the side, typically a major or minor third apart, as the figure marks. Casting one bronze object to sound two exact pitches, sixty five times over in graduated sizes, then grinding each interior to its final tuning, implies command of a technology that was not fully understood again until modern acousticians analyzed the set after excavation. When the bells were played after excavation, their pitches proved remarkably close to the

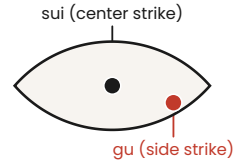
ones their inscriptions promise, tolerances and all; twenty four centuries underground had barely moved them.

BIANZHONG OF MARQUIS YI



65 bells in all; larger bells hang lower

ONE BELL, TWO TONES



two tones per bell,
a third apart

The Marquis Yi bells on their three tier rack: an almond cross section gives each bell a sui tone at the center strike point and a gu tone at the side, two exact pitches from one casting, sixty five times over.

The bells had hung in the dark for twenty four centuries, and they were still very nearly in tune.

The deepest revelation was written on the bronze. The bells and their rack carry about 3,755 characters of inscriptions, the earliest substantial text of music theory in China. They name the pitches, and then they translate them: this tone in Zeng corresponds to that tone in Chu, and to that one in

Zhou. Someone in the fifth century BCE compiled a comparative concordance across the tuning systems of rival states, which means that by then music theory was already a mature scholarly discipline with technical vocabulary, regional schools, and cross-border scholarship, centuries before the Han compilations that preserve the philosophy. The inscriptions also demonstrate full awareness of the twelve semitone gamut, the system the Ling Lun legend dresses in phoenix feathers. Lothar von Falkenhausen, whose *Suspended Music* remains the standard study of these bells, reads the set as evidence of a sophisticated, empire-spanning science of pitch flourishing at the very moment Confucius was teaching, an archaeology not of objects but of sound itself.

The Marquis Yi bells are also the best possible answer to a fair question: was all the talk of cosmic tuning merely talk? Bronze is expensive, and two-tone casting is brutally hard. No court sinks that much treasure and craft into precision without believing precision matters. The bells are the philosophy, poured in metal.

— The Critics of Music

Not everyone consented. Mozi, who taught in the generation after Confucius, built a rival school on austere utilitarian ground, and one of his surviving essays is titled, bluntly, *Against Music*. His argument is not that music fails; he concedes the great bells are beautiful. It is that they cost too much. The bronze, the grain, the cloth, the years of labor that a bell ensemble devoured were extracted from ordinary people who would never stand in the ceremonial hall, and the sound of bells, he observed, neither feeds the hungry nor clothes the cold. Music, in Mozi's ledger, was elite consumption dressed as cosmic necessity.

The Daoists opened a second flank. The *Zhuangzi*, that anarchic masterpiece of the fourth and third centuries BCE, delights in deflating ceremony, and it offers a counter-music: the piping of heaven, the sound of wind moving through ten thousand hollows, each opening voicing itself. Beside that unforced chorus, the bells and chimestones of the court are contrivance, effortful and a little vain. Where Confucians heard the sound of order in *yayue*, the *Zhuangzi* suggests that the profoundest music is the one nobody performs.

Notice what the critics concede. Nobody writes a treatise against something trivial. Mozi attacked music precisely because it commanded enough

wealth and reverence to be worth attacking; the Zhuangzi mocked ritual sound because ritual sound held real power over minds. The argument between them and the Confucians was never about whether music mattered. It was about what to do with a force everyone agreed was real. That argument, conducted with treatises rather than shrugs, is ancient China's signature: sound taken seriously enough to fight over.

The Qin unification of 221 BCE closes this chapter's window, but nothing in it ended. Chapter 1 watched India arrive at the conviction that sound is sacred; China arrived, by its own route, at the conviction that sound is order, and both traditions then spent millennia acting on the conclusion. The characters for *yayue* would travel east, to be pronounced *gagaku* in Japan and *aak* in Korea, where Chapter 3 finds whole bureaucracies built to keep elegant music correct; Chapter 11 returns to China to watch a new dynasty reconstruct the Zhou sound from texts, and a prince of that dynasty finally close Ling Lun's spiral. The Shao that stopped Confucius is lost, every note of it. The claim he carried away from Qi never was. It was the claim that music matters, profoundly and consequentially, and that taking it seriously is not a luxury but a necessity.

LISTENING NOTES

♪ Guan Pinghu, *Liu Shui* (Flowing Water)

The recording chosen in 1977 for the Voyager Golden Record; listen for the harmonics scattering over the long glissandi like light on the water the title names.

♪ Guan Pinghu, *Jieshi Diao Youlan*

Probably the oldest surviving written melody in East Asia, preserved in a Tang manuscript and reconstructed by the twentieth century's great qin scholar; austere, wandering, closer to speech than song.

♪ Hubei Song and Dance Ensemble, *The Imperial Bells of China*

A full ensemble on the replica Zeng bells; hear the two pitches living inside a single bell and a bass register no other Bronze Age instrument approaches.

♪ Hu Tianquan, *Fenghuang Zhan Chi* (The Phoenix Spreads Its Wings)

The modern sheng master's showpiece: one player breathing chords in and out, the free reed polyphony that ancient China invented and later lent to the West.





FIRST PRINCIPLES — CHAPTER 3

Elegant Music: Gagaku and the Courts of Japan and Korea

In 752, ten thousand people gathered at Nara to open the eyes of a bronze Buddha, and the music of half of Asia played for them. Japan and Korea heard the continent, then made its sound their own.

552 TO 1392 CE

• NARA, KYOTO, KAESONG

雅楽

gagaku · elegant music

On a spring morning in 752, on the eastern edge of the Japanese capital at Nara, the largest crowd the islands had ever assembled watched a statue being given its sight. The Great Buddha of Todaiji sat fifteen meters high inside the wooden hall built around him, his new gilding still bright, and he had cost Japan nearly everything it had: years of labor, a mountain of copper, a treasury strained to the edge of ruin. The retired emperor Shomu, who had vowed the colossus into existence while plague and re-

bellion shook his reign, sat below with the empress Komyo; their daughter Koken, the reigning empress, presided. The chronicle counts ten thousand monks in attendance. One task remained, because a statue becomes a Buddha only when its eyes are painted in, and the man chosen to hold the brush tells us what kind of world Nara thought it lived in: Bodhisena, a Brahmin monk born in southern India, who had crossed two oceans to teach in Japan.

Bodhisena climbed to the great gilded face and painted in the pupils with a brush the size of a broom. From its handle hung cords that ran down into the crowd, and everyone who held a cord shared in the act of opening the Buddha's eyes; the brush and the cords still exist, stored a few minutes' walk from where he stood. Then the music began. Temple records preserve the program of that afternoon like a map of the known world: masked pantomime, dances of Tang China, pieces of the three Korean kingdoms, music remembered as Indian, music of Champa on the coast of what is now Vietnam. Musicians who had sailed with Bodhisena sixteen years earlier performed beside the hereditary families of the court's own music bureau. Dozens of the wide eyed, grinning masks worn that afternoon still survive in Nara's treasuries. Half of Asia, for one afternoon, was audible in a single courtyard.

This chapter is about what Japan and Korea did with everything they heard that day and for centuries around it. The easy version of the story says that two courts on China's periphery imported Chinese music and kept it carefully in storage, and the easy version is wrong. Japan sorted, slowed, and recomposed its inheritance into **gagaku**, a court music that now sounds like nothing in China, while Korea folded the same continental stream into a threefold repertoire that sounds like nothing in Japan. Listening, in both countries, became a form of composition. And because both courts believed correct music upheld the state itself, they did what almost no other culture managed: they wrote the sound down, budgeted for it, and kept it alive for more than a thousand years.

— The Eye-Opening Ceremony

An eye opening ceremony is a consecration, the moment a made object becomes a presence, and the rite at Todaiji was also politics conducted at the grandest available scale. Shomu had ordered a temple raised in every province of Japan, with the Great Buddha as the hub of the network, and

the dedication announced Japan as a full member of the Buddhist civilization that stretched from India through Tang China to the edge of the Pacific. The orchestra was the announcement. A court did not merely proclaim its membership in that world; it performed the world's music, in the world's modes, on the world's instruments, before ten thousand witnesses.

The performers of the Indian and Southeast Asian pieces had a precise history behind them. When Bodhisena's ship reached Japan in 736, it also carried Buttetsu, a monk from Champa, and the two settled at a Nara temple and taught what they knew. The court filed their music under two labels: *tenjikugaku*, music of India, and *rin'yugaku*, music of Champa. File labels sound bureaucratic because they were. Nara ran its music the way it ran its taxes, through offices, ranks, and registers, and that habit, easy to smile at, is the reason any of this survived.

The name the tradition came to carry says what the court believed it was hearing. *Gagaku* joins two characters: *ga*, elegance, correctness, the way things are done in a civilized place; and *gaku*, music. Chinese readers pronounce the same pair *yayue*, Koreans read it *aak*, Vietnamese *nhac*, and each names a court tradition of its own, four survivals of a single Confucian idea. Chapter 2 traced that idea to its source: music is not entertainment but a technology of order, and a court that plays correctly is a court aligned with heaven. When the young Japanese state built a music bureau before it built much else, it was not indulging a taste. It was installing equipment the classics said a state required.



The characters of gagaku: ga, the elegance of things done correctly, and gaku, music; Chinese reads the same pair yayue, Korean aak, Vietnamese nha nhạc, one ideal in four courts.

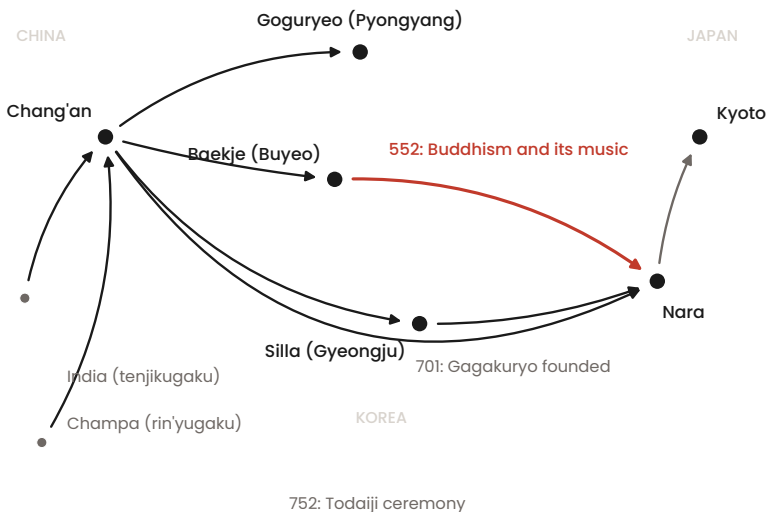
— How the Continent Arrived

The continent had been arriving for two centuries before the Buddha opened his eyes. In 552, by the chronicle's dating, King Seong of Baekje sent the Japanese court a gilt bronze Buddha image and a case of scriptures, the official beginning of Japanese Buddhism, and music walked the same gangplanks. The chronicles record Silla musicians crossing the strait for the funeral rites of an emperor as early as the fifth century, and in 612 a Baekje performer named Mimashi settled at court and taught Japanese boys *gi-gaku*, the masked dance drama he had learned in southern China. Chinese histories describe the ensembles of Goguryeo, with long necked lutes, transverse flutes, and penetrating reed pipes, ancestors of instruments that

would one day sit in the gagaku ensemble. Korea in these centuries was not a bridge carrying Chinese goods. It was a set of musical nations exporting their own courts.

Behind the peninsula stood Tang China, whose capital Chang'an was the largest city on earth and the most cosmopolitan. The Tang court organized its banquet entertainments by nation, with divisions devoted to the music of Kucha, Samarkand, Bukhara, India, and Korea, so that its own repertoire, the banquet music called *yanyue*, was already a synthesis of half a continent. This is what Japan set out to acquire. Between 630 and 838 the court dispatched its famous embassies to the Tang, and the ships came home carrying law codes, city plans, script, doctrine, instruments, part books, and musicians who had spent years studying in Chang'an. The map traces what the sea crossings carried: Japan was not borrowing Chinese music so much as importing China's own digest of Asia, with the freight labels still attached.

HOW COURT MUSIC REACHED JAPAN



The long road of elegant music: from Chang'an and the Silk Road courts through the Korean kingdoms to Nara and Kyoto, sea crossings carrying instruments, musicians, and the doctrine that music orders the state.

The receiving institution was already standing. The Taiho Code of 701, the legal reform that rebuilt Japan along Tang administrative lines, established the Gagakuryo, the Bureau of Music, charged with training musicians, maintaining instruments, and staffing every ritual of the court calendar. At its height its rolls could hold more than four hundred musicians, many from hereditary families of Korean and Chinese descent whose ancestors had made the crossing generations before. The komabue, the small flute of the Korean repertoire, keeps the memory in its name, because Koma is the Japanese reading of Goguryeo. The bureau taught native song and dance as well, but its staffing made the priorities plain: the continental repertoire was the prestige curriculum. Music was a department of state, with job titles, examinations, and stipends, and some of the family lines enrolled in it have descendants performing today.

— Left and Right: Organizing the World's Music

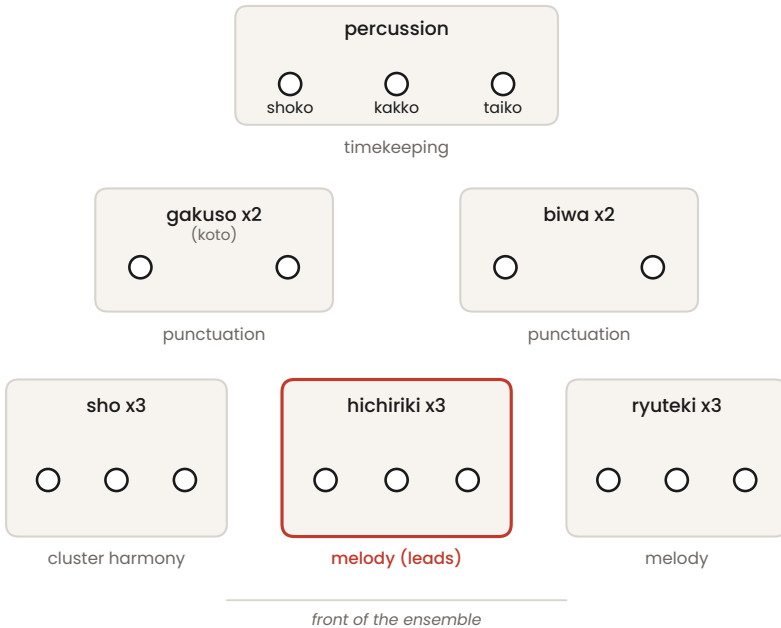
For its first century and a half, the bureau filed music the way a customs office files cargo, by port of origin: togaku was the music of Tang China, komagaku the music of Koma, tenjikugaku the Indian pieces, rin'yugaku the pieces of Champa, while native ritual song stood apart in its own registers. The scheme was accurate, and it was unwieldy, and in the ninth century the Heian court replaced it with something more elegant and more revealing.

That reorganization, remembered as the gakusei kaikaku, the reform of the music system, consolidated four continental categories into two. Everything that had arrived through China, including the Indian and Champa repertoire, became **togaku**, the Music of the Left. Everything from the Korean kingdoms and the Manchurian state of Bohai became **komagaku**, the Music of the Right. Left dancers wear red, Right dancers green. The Right plays without the sho and without strings, led by its own flute and its own hourglass drum, so the two halves of the repertoire remain audibly different worlds. This was not clerical tidying. It was the moment Japan stopped curating imports and began composing a world picture: all the music of the continent, arranged in two facing rows before the throne, with Japan itself in the position of the listener who commands both.

Within that frame the repertoire divides by function, beginning with **kangen**, literally pipes and strings: chamber performance of togaku without dance. At classical strength kangen seats sixteen players, and the en-

semble diagram shows the classical complement: three sho, three hichiriki, three ryuteki, two biwa, two gakuso, and three percussionists. Bugaku is the danced repertoire, Left and Right in alternation, masked and costumed, moving through choreography so deliberate it seems geological. Alongside both ran the music the two way scheme did not cover: mikagura, the Shinto rite songs of the palace sanctuary; saibara, Japanese folk songs dressed in court clothing; and shomyo, the Buddhist chant systematized by the Tendai and Shingon schools from the ninth century, whose cadences echo far downstream in Japanese vocal music. The two way map charted abroad. Home was filed separately.

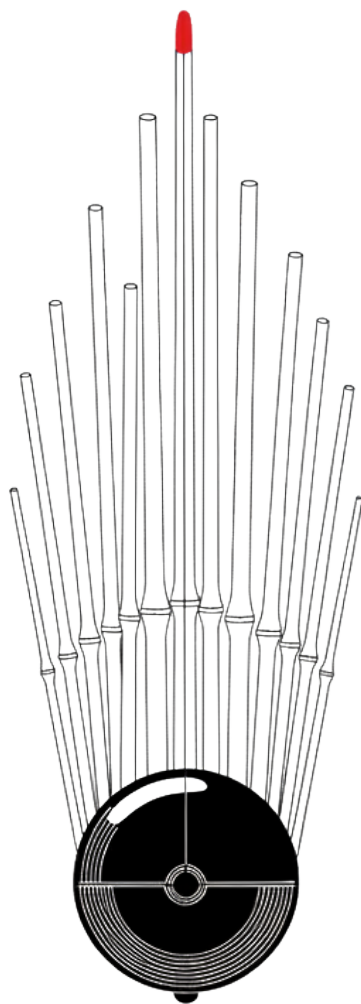
KANGEN ENSEMBLE, SEEN FROM ABOVE



A kangen ensemble at classical strength: three sho, three hichiriki, three ryuteki, two biwa, two gakuso, with kakko, shoko, and taiko on the center line, sixteen musicians breathing as one instrument.

— The Instruments of the Court

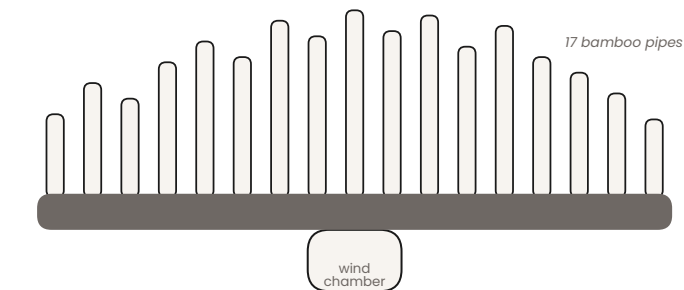
Begin with the instrument that sounds least like anything else on earth. The sho is a mouth organ of seventeen slender bamboo pipes set upright in a lacquered wind chest, and because its free reeds speak on both the exhale and the inhale, its sound never has to pause for breath. Players rotate it over a charcoal brazier between pieces so that condensation never silences the reeds, a ritual of care as old as the repertoire.



The sho: seventeen bamboo pipes in a lacquered wind chest, sounded on both exhale and inhale so that its chords never pause to breathe.

What the sho plays are the *aitake*, a repertoire of ten or eleven standard cluster chords, each a stack of five or six pitches, through which the player moves so gradually that harmony stops behaving like an event and starts behaving like weather. The diagram lays the clusters out as the fingers find them. Listen for the moment one *aitake* dissolves into the next: there is no attack, only a tilt in the light. Over this suspended halo the *hichiriki* carries the principal melody. It is a cylindrical double reed pipe barely eighteen centimeters long, and it is the loudest voice in the ensemble, reedy, penetrating, and expressive far out of proportion to its size. Its thick reed lets the player bend and slide between written tones, and the technique is the heart of the style, because the notes between the fixed pitches are where much of the emotional content lives. Years of training pass before a student produces a single stable tone, and the hereditary families guarded the secrets of the reed accordingly.

THE SHO: 17 PIPES, A CHORD AT A TIME



ten of seventeen pipes sound; clusters of five or six notes

example *aitake*

● sounds ○ silent

kotsu



ichi



otsu



The *aitake*, the sho's standard cluster chords: stacks of five or six pitches through which the player drifts so gradually that harmony becomes weather.

The ryuteki, the dragon flute, plays a second melodic line, higher, lighter, and quicker in ornament than the hichiriki's, and the space between the two lines is where the music shimmers. In the Right repertoire its place is taken by the smaller, brighter komabue. The strings mark structure rather than melody: the gaku-biwa, a four stringed lute struck with a broad plectrum, drops short arpeggiated figures like punctuation, and the gakuso, a thirteen stringed zither, plucks stereotyped patterns that outline the frame of the piece. Both instruments were destined for larger lives outside the palace. Chapter 13 finds the biwa in the hands of blind storytellers and the koto remade as the chamber instrument of a merchant city, and it is worth remembering that both careers began here, as timekeepers of the court.

Percussion completes the ensemble and, in truth, conducts it. The kakko, a small barrel drum played with two slim sticks, belongs to the Left and leads the ensemble, its accelerating rolls signaling every structural turn; the Right entrusts the same duty to the san no tsuzumi hourglass drum. The shoko, a small bronze gong, ticks off the beats of the cycle. The taiko, suspended in a great lacquered frame, strikes the largest divisions of the form. Every one of these instruments has an eighth century ancestor lying in state ten minutes' walk from the Great Buddha.

FIGURE

The Shosoin Treasures

In 756, forty nine days after the retired emperor Shomu died, the empress Komyo dedicated his possessions to the Great Buddha. They were placed in the Shosoin, a log built treasury raised on pillars in the Todaiji precinct, and there, sealed by imperial order and opened only under supervision, thousands of eighth century objects have survived into the present in near perfect condition.

Among them are roughly seventy five items of music: around eighteen kinds of instruments, along with masks, costumes, and the very brush and cords used at the eye opening ceremony of 752. The most celebrated is the five stringed biwa of sandalwood and mother of pearl, probably Tang workmanship and the only five stringed biwa surviving anywhere on earth. Inlaid on its plectrum guard is a musician riding a camel, playing a lute: the Silk Road portraying itself, on an instrument that had traveled it.

The repository also preserves fragments of the kugo, the angular harp that later vanished from East Asian ensembles, a genkan lute, flutes, and

panpipes. Aired and inspected each autumn, with a selection shown annually in Nara, the Shosoin is arguably the oldest continuously curated museum collection in the world, and it means we do not have to guess what the instruments of 752 looked like. We can go and see them.

— Slowness as Perfection

What did all this machinery sound like? Not like Tang China, and not like anything designed for excitement. Each melodic instrument renders the same line in its own idiom, ornamented differently, rhythmically offset, so that the ear receives a single melody heard through multiple simultaneous interpretations, like looking at something through water. Tempo is stretched until individual tones acquire interiors, and the occasional deep stroke of the taiko arrives like a geological event. Nothing resolves in a hurry because nothing is in doubt. Put on a kangen performance of Etenraku, the one gagaku piece many Japanese listeners can hum, and listen for the first minute only to the sho: once you notice that the halo never breathes, the slowness stops feeling empty and starts feeling architectural.

The system beneath the sound is modal. Each togaku piece belongs to one of six **choshi**, the court modes: ichikotsucho, hyojo, sojo, oshikicho, banshikicho, and taishikicho, grouped into two scale families called ryo and ritsu. Tradition matches the modes to seasons and hours, and each has its own **netori**, a brief prelude in which the leading instruments enter one by one to establish the mode's atmosphere before the piece proper begins. A netori lasts less than a minute, and it is one of the most beautiful ideas in East Asian music: the ensemble does not simply start, it convenes. Heian listeners, for their part, loved Etenraku enough to steal it; fitted with words, its melody circulated as popular song far beyond the palace walls, court music leaking into the street, a traffic Chapter 13 runs in the opposite direction.

The audience for this refinement was itself refined. In the Heian centuries the court moved to Kyoto and gagaku became the soundtrack of aristocratic life, and playing it became a courtier's accomplishment. The Tale of Genji, written around the year 1000, is full of amateurs of rank: princes trading flute phrases, ladies judged by their touch on a koto string. The listeners in those garden pavilions were not bored by the slowness. They were trained to hear it as the sound of order itself, the sound of a world properly arranged.

They were trained to hear it as the sound of order itself, the sound of a world properly arranged.

How much Tang actually survives inside togaku is a genuine scholarly fight, and the honest answer is worth a paragraph. Laurence Picken, the Cambridge scholar who led the Music from the Tang Court project from the 1970s onward, argued that the medieval Japanese part books preserve real Tang melodies, but performed today at a fraction of their original tempo, brisk dance tunes stretched past recognition and buried under centuries of accreted ornament; his team published reconstructions that move at dancing speed. Japanese masters and other scholars reply that the transformation is not corruption but the tradition itself, that gagaku was never meant to be a recording of Tang. Both sides agree on the astonishing part: notated parts descending from the medieval court still exist, and still govern performance.

— Korea's Parallel Path

Korea, which had given Japan so much of its music, was running the same experiment at home with different results. After Silla unified the peninsula in the years from 668 to 676, its court performed native music beside imported music, and native music had deep institutional roots: the geomungo zither, by legend the invention of the Goguryeo minister Wang Sana, whose playing is said to have drawn a black crane down to dance, and the gayageum, whose own origin legend Chapter 15 tells in full. The legends are labeled as such even in the twelfth century history that records them, but they show how Korea imagined its instruments: as national possessions with biographies.

Under the Goryeo dynasty, which ruled from its capital at Kaesong from 918 to 1392, the court settled into the threefold classification that has organized Korean music ever since. Hyangak is native music, the stream that carries Korea's own voice; its banner work is the processional Sujecheon, whose melody tradition traces to a song of the old Baekje kingdom, a claim to file as lineage legend rather than document, and whose slow unrolling

Chapter 15 hears in full. Dangak is the secular music imported from Tang and Song China, banquet elegance naturalized over centuries. Aak is Chinese ritual music for the Confucian rites, the Korean reading of yayue. Set beside Japan's system the taxonomy is revealing: Japan drew a two way map of abroad, with itself as listener, while Korea drew a three way map that kept its own music inside the frame, a category equal in dignity to China's. Every later chapter of Korean music lives inside this grid.

Aak arrived by diplomacy, and we can date the shipments. King Yejong of Goryeo petitioned the Song court for ritual music, and in 1114 the emperor Huizong sent a first gift of 167 banquet instruments. Two years later, in 1116, came the great consignment: 428 instruments of the Dasheng ritual ensemble, with 572 costumes and ritual dance objects, bells and stone chimes and zithers unloaded at Kaesong to equip Korea for the Confucian rites on the Chinese model. Huizong, aesthete and calligrapher, would lose his throne and die a Jurchen prisoner little more than a decade later; the music he shipped abroad outlived his possession of it. That is not an irony unique to him. It is close to the theme of this chapter.

Time was hard on the gift. Instruments decayed, wars scattered ensembles, and the Red Turban invasion of 1361 destroyed much of what remained, so that Korean scholars rebuilt aak repeatedly from Chinese treatises, a philological reconstruction of sound. Dangak dwindled until only two pieces survived, Boheoja and Nakyangchun, both thoroughly Koreanized. Yet the triad held, and when the Joseon dynasty replaced Goryeo in 1392 the whole apparatus passed to a new royal music office and, in the fifteenth century, to the most remarkable court music project in Korean history, King Sejong's reconstruction, which Chapter 15 takes up. Today aak survives in a single ceremony, the Munmyo rite honoring Confucius in Seoul, the closest sound anywhere, China included, to the vanished yayue ideal.

— Survival by Bureaucracy

Why did all of this last? Not because the music was loved, though it was, but because it was administered. The Engishiki, a Heian compendium of court regulations completed in 927, specifies the Gagakuryo's instrument inventories, the number of musicians for each grade of ceremony, the training curriculum, and the stipends owed to performers, and it preserves song texts with early notation. Music was not left to improvisation or individual

taste; it was specified, budgeted, and regulated. A melody can be forgotten in a generation. A budget line defends itself.

Music was not left to improvisation or individual taste; it was specified, budgeted, and regulated.

The tradition also produced its own historian. Koma no Chikazane, born in 1177 into the Koma family, hereditary masters of the Music of the Right whose ancestors had crossed from Korea centuries earlier, spent a lifetime inside the repertoire and then wrote it down. His *Kyokunsho*, completed in 1233, is a treatise in ten volumes, its title meaning roughly notes of instruction: the modes and their preludes, the histories of pieces, performance customs, backstage lore, the accumulated opinions of a family with half a millennium of professional memory. As history he is not always reliable, since he happily credits pieces to legendary Chinese emperors and divine dreams, and those attributions should be read as legend. As a record of how practitioners understood their art, the *Kyokunsho* is priceless: the moment a living tradition turned around and described itself.

Even bureaucracy has limits, and honesty requires the rupture to be named. The Onin War, which burned Kyoto in the years from 1467 to 1477, scattered the court musicians, and transmission frayed for generations; the repertoire was reassembled from the three hereditary guilds, remembered as the *sanpo gakuso*, that survived at the Kyoto palace, at the great temples of Nara, and at Shitennoji in Osaka. The Tokugawa shoguns put the families back on stipend, and from 1870 the Meiji state gathered them into a single Tokyo bureau, today the *Gakubu*, the music department of the Imperial Household Agency, whose players still perform the repertoire Robert Garfias documented in the fullest English study of the tradition. So the familiar claim that *gagaku* is the oldest continuously performed orchestral music on earth needs one careful footnote: the continuity is institutional and genealogical, carried across a documented rupture by families, notation, and stubborn administration. Properly qualified, the claim becomes more impressive, not less, and UNESCO recognized the tradition in 2009.

Korea's version of the same story runs through its own offices. The Joseon court's music institute, the Jangagwon, administered ritual and banquet music for five centuries; under Japanese colonial rule it survived, reduced, as the household music bureau of the deposed royal family; and in 1951, in wartime refuge at Busan, it was rechartered as the National Gugak Center, which performs the court repertoire today. The center claims an unbroken line of court musicians reaching back to Silla, and if the earliest links are genealogical convention, the chain from Joseon forward is documented fact. Two nations, two bureaucracies, one result: the sound survived.

Return, last, to the cords hanging from Bodhisena's brush. Ten thousand people holding lines to a single act of consecration is as good an image as this tradition offers of itself: emperor and monk, Korean flutist and Tang trained lutenist, all gripping the same thread. Gagaku and aak are what such threads become when institutions refuse to drop them. The music of 752 was the sound of half of Asia arriving; the music of the Heian pavilions and the Kaesong rites was the sound of two nations answering; and the answer is still being played, at the Tokyo palace and at the Munmyo shrine, by musicians who hold the far end of the cord. Chapter 13 follows Japan's instruments out of the palace and into the floating world. Listen, before you go, to a netori convening the mode out of silence. That is what a thousand years of preservation sounds like: not a museum, but an ensemble, still tuning.

LISTENING NOTES

♪ Music Department of the Imperial Household, Etenraku

The most famous togaku piece, in hyojo mode, from the palace musicians themselves: the netori convenes the mode, then the hichiriki bends its line through the sho's unbroken halo.

♪ Tokyo Gakuso, Gagaku and Beyond

Classical court repertoire beside new works for the same instruments; hear sixteen players breathe as one, and how naturally a twelve hundred year old ensemble carries living music.

♪ National Gugak Center Court Music Orchestra, Sujecheon

Korea's stately hyangak masterpiece: phrases that swell, crest, and hand off without a seam, the peninsula's own answer to suspended time.

🎵 **National Gugak Center, Munmyo Jeryeak**

The Confucian rite for the sage himself, with stone chimes and bronze bells: the nearest living sound to the yayue ideal that Chapter 2's philosophers imagined.





FIRST PRINCIPLES — CHAPTER 4

The Framework of Feeling: Raga, Tala, and the Theory of India

A raga is not a scale. It is closer to a person: a set of habits, a way of moving, a time of day it keeps. India built the world's most complete theory of how melody produces emotion.

C. 200 BCE TO THE PRESENT

• THE INDIAN SUBCONTINENT

राग

raga · that which colors the
mind

Eight o'clock on a December night in Pune, and the hall has gone quiet in the particular way Indian concert halls go quiet, which is to say not completely. Two tanpura players seated behind the vocalist have been strumming for a full minute, four strings each, cycling endlessly, until the air in the room seems to acquire a grain. Listen for the moment the drone locks in, when the separate pluckings fuse into one continuous shimmer. That is

the stage being built, out of sound, in real time. Then the vocalist lifts her head and sings three notes.

They are long notes, unhurried: a low Ni that leans upward, a Re that settles onto it, a Ga that opens like a door swinging wide. In the third row a white-haired listener closes his eyes and murmurs a name to nobody: Yaman. He is right, and he is not guessing. Nothing has been announced, no program printed. Three unaccompanied notes, and several hundred people now know what music will unfold for the next hour: what mood it will keep, which two notes will act as home and horizon, which note will be bent and which approached straight, even what time of evening the music assumes it is. Ask a symphony audience to name a work from three unaccompanied pitches and the game collapses, because a symphony is a piece, a fixed object. What this vocalist has invoked is not a piece. It is a raga, and the performance now beginning has never happened before and will never happen again.

This chapter is about the theory underneath that act of recognition, and its claim is simple: raga and tala together form the most complete account any civilization has produced of how melody and rhythm manufacture emotion. The theory was built in two great layers, roughly a thousand years apart, by named and knowable people: Bharata the encyclopedist, Matanga the definer, Sharngadeva the systematizer, Bhatkhande the modern cataloguer. Chapter 1 heard Indian music treated as sacred technology. This chapter watches it become intellectual technology, without ever ceasing to be the first thing.

— What a Raga Is

The word grows from the Sanskrit root *ranj*, to color, to tint, to dye. Matanga, the first theorist to define the term, explained a **raga** as that which colors the mind, and the etymology is not decoration: a raga is judged by the stain it leaves. It is not a scale, though it uses specific notes. It is not a melody, though it generates thousands of them. It is not a mood, though it reliably produces one. The nearest truthful description is the one this chapter's opening implied: a raga is like a person. It has habits, phrases it returns to the way people return to favorite sayings. It has a gait, a characteristic pace and way of moving between notes. It has manners: notes it approaches only obliquely, notes it refuses to linger on. And it keeps ap-

pointments, an hour of the day or a season whose light it is understood to carry.



Raga in Devanagari script. The root ranj means to color or to dye: a raga is that which colors the mind.

One demonstration makes the point better than any definition. Raga Bhupali and raga Deshkar use exactly the same five notes: Sa, Re, Ga, Pa, Dha. They are nonetheless different ragas, and no trained listener would confuse them for eight bars. Bhupali orbits Ga, moves with an evening gentleness, and rests low; Deshkar throws its weight onto Dha, favors the upper reaches, and belongs to the morning. Same alphabet, different persons. Whatever a raga is, it is not reducible to its note list, and a theory adequate to it must describe behavior, not merely content. Indian theory does. Where Western theory asked how notes relate to each other harmonically, Indian theory asked how notes relate to human feeling.

*Where Western theory asked how notes relate to
each other harmonically, Indian theory asked
how notes relate to human feeling.*

Chapter 1 introduced rasa, the Natyashastra's doctrine that art exists to produce distilled states of feeling in its audience. The raga is that doctrine made operational. Classical writers understood each raga as a vehicle for a particular rasa, and the linkage was never decorative: it was the organizing principle of the whole system, the reason rules about notes exist at all.

Karuna, pathos; shringara, love; vira, heroism; for each region of feeling, melodic means. Read a raga's grammar, which notes to stress, which to bend, which to avoid entirely, as a recipe refined over centuries for producing one state of mind on demand, and the theory's strangeness resolves into a purpose.

That project produced two distinct theoretical layers, and confusing them is the commonest error in popular accounts. The ancient layer, the machinery of gramas, murchhanas, and jatis, belongs to the *Natyashastra* and its successors, and no musician performs from it today. The modern layer, the twelve note-positions and ten parent scales of current Hindustani practice, is barely a century old in its finished form. Between them stretches a thousand years of argument, and the honest way to present the theory is the way it happened: oldest first.

— Twenty-Two Shrutis: the Microtonal Grid

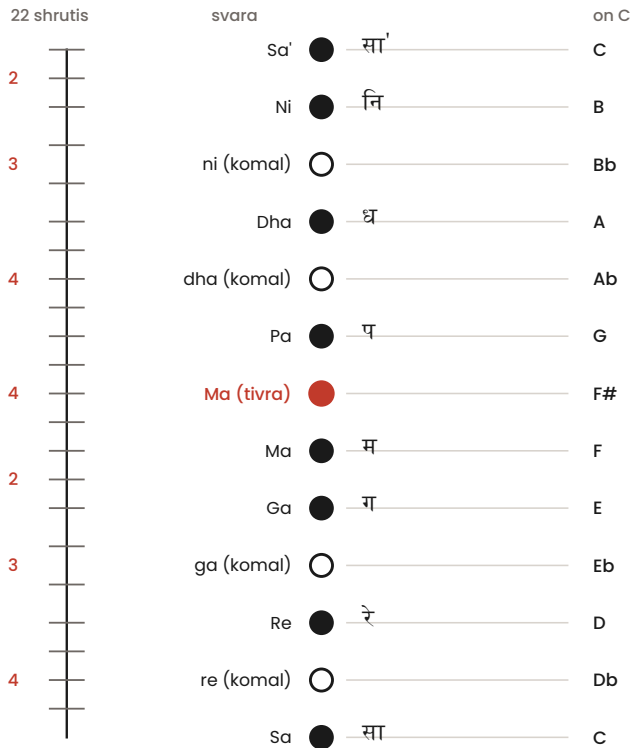
Begin with the ancient layer's foundation, and with an experiment. In the twenty-eighth chapter of the *Natyashastra*, Bharata sets up two *vinas*, tuned identically. Leave one fixed, he says. Lower every string of the other by the smallest interval the ear can certify, then lower it again, and again, and watch which notes of the moving instrument collapse onto which notes of the still one, and after how many steps. The exercise, the *saranachatushtaya*, is a genuine psychoacoustic experiment conducted around two thousand years ago, and its conclusion is the bedrock of Indian tuning theory: the octave contains twenty-two just-discriminable microintervals, each called a **shruti**, and the familiar intervals of the scale are built from unequal parcels of them, some spanning four shrutis, some three, some two. In the *shadja-grama*, the primary tuning, the parcels run four, three, two, four, four, three, two from *Sa* up to *Ni*.

The second tuning, the *madhyama-grama*, is identical except that *Pa* sits one shruti lower, and that single displaced step earned a name: the *pramana shruti*, the measuring shruti. Modern acoustics recognizes it as the syntonic comma, the ratio of eighty-one to eighty, about twenty-two cents, the sliver of pitch separating the two sizes of whole tone that just intonation requires. The ancient theorists, working entirely by ear, had isolated it. One caution keeps the achievement honest: the shrutis are unequal, and the widespread modern picture of twenty-two identical micro-steps divid-

ing the octave, a kind of super-chromatic grid, is a misreading. The shruti is a unit of measurement, not a note you play.

The modern layer keeps the seven svaras of Chapter 1 but stations them differently. Today's Hindustani theory works with twelve svarasthanas, note-positions, in the octave: Sa and Pa are immovable; Re, Ga, Dha, and Ni each occur in a lowered form, komal, and a natural form, shuddha; Ma occurs shuddha or raised, tivra. Twelve positions, mapping loosely onto the piano's chromatic scale but not tempered to it. The shrutis live on inside the positions as intonational flavors: the komal Ga of raga Darbari is sung *ati-komal*, pressed a fraction lower than the same note in other ragas, and the drone makes the difference audible. Count two fixed notes plus ten movable ones in two flavors each and you recover twenty-two, the old grid folded inside the new ladder, as the figure shows.

THE TWELVE SVARASTHANAS, SA TO SA'



The twelve note-positions of modern Hindustani music with the unequal shruti steps of the ancient system ticked alongside: Sa and Pa fixed, every other svara offering a lowered and a raised form.

— From Grama to Raga: the Ancient Machinery

What did the ancients build on that foundation? A machine of nested frameworks. From each grama, seven murchhanas were derived by starting the note-series on each successive degree, fourteen modal frames in all. Overlaid on the murchhanas were the eighteen jatis, seven pure and eleven mixed: melodic classes, each specifying its dominant note, its final, its strong and weak tones, and the dramatic feelings it served, the direct ancestors of raga. This was the working theory of gandharva, the ritual art music of the classical stage, and it was already a mature discipline when the Dattilam, a treatise of 244 terse verses that the scholar Mukund Lath has illuminated, condensed it for specialists. A third grama, the gandhara-grama, was said to exist only in heaven: theological bookkeeping for a tuning no one on earth used.

The word that changed everything arrived quietly. Sometime between the sixth and ninth centuries, Matanga's Brihaddeshi became the first surviving text to define and treat the raga as a category in its own right. Matanga did something else radical: he took seriously the desi music of the regions, the living local song that earlier theory had waved aside, and set it beside marga, the inherited sacred stream. His book also contains the earliest surviving treatment of sargam, solfège notation using the svara syllables themselves. With Matanga, theory stopped merely guarding the past and started describing the present, and the raga, the melodic personality rather than the abstract mode, became the unit of Indian musical thought.

The system reached its ocean in the Deccan. Between 1210 and 1247, at the hill-fortress capital of Devagiri under the Yadava king Singhana II, a court accountant of Kashmiri Brahmin descent named Sharngadeva compiled the Sangita Ratnakara, the Ocean of Music: seven chapters covering pitch and shruti, then 253 ragas described one by one, then performance and voice culture, composed forms, tala, instruments, and dance. It is the last great treatise that both of India's classical traditions accept as authoritative, and that makes it the fork in the road. Within fifty years of Sharngadeva's death, the armies of the Delhi Sultanate reached Devagiri, and the

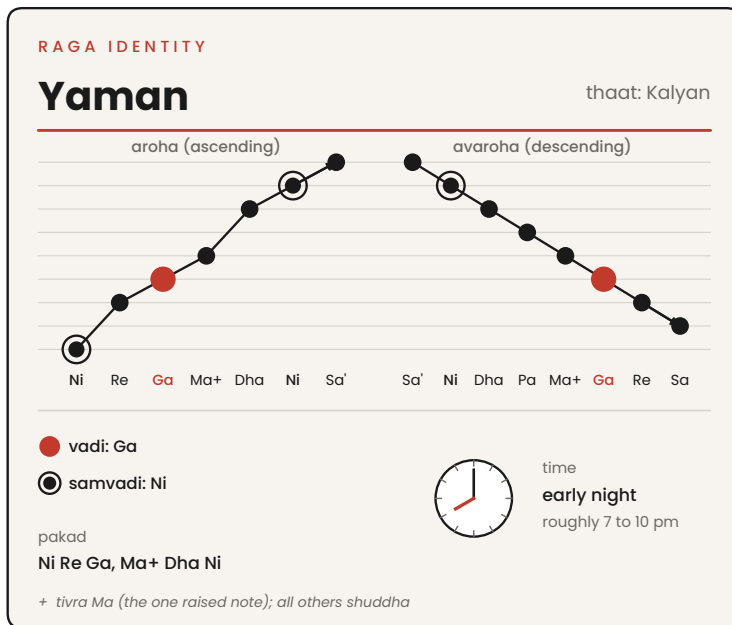
centuries that followed drew the north into the Persianate world while the south elaborated the older inheritance on its own terms. Hindustani and Carnatic music were beginning their long divergence, and when Chapter 10 visits the Mughal court and Chapter 17 visits Thanjavur, both will still be arguing from Sharngadeva's book.

In the centuries after him, the ragas acquired families and faces. Medieval writers grouped them into households, six male ragas each wed to a set of raginis, with sons and daughters-in-law filling out the tree, and court painters turned the households into the Ragamala albums: Bhairav an ascetic in the grey of dawn, Megh striding beneath rainclouds, Todi a woman in a forest charming deer with her vina. As classification the scheme was unstable, no two authorities agreeing on the marriages, and later theory discarded it. As evidence it is priceless. Nowhere else did a civilization paint its scales, and the albums show how completely India understood its melodies as persons, with kin, moods, and weather of their own.

— The Anatomy of Yaman

Modern theory describes a raga with a compact toolkit, and the best way to learn the toolkit is to point it at one raga. The arohana is the ascending form, the avarohana the descending, and they need not match: notes omitted going up may return coming down, and this asymmetry is often the raga's signature. Note-count gives the jati: audava with five notes, shadava with six, sampurna with all seven. The vadi is the sonant, the raga's most-stressed note; the samvadi, a fourth or fifth away, is its consonant partner, and the two notes anchor the raga's emotional space the way the foundation and the roof anchor a building. These are not paper designations. In performance a musician returns to the vadi again and again, rests on it, ornaments it, approaches it from fresh angles, until even a listener who knows no theory feels the note's gravitational pull. Nor are the assignments beyond dispute: the hereditary schools we will meet in Chapter 21 sometimes disagree over a raga's vadi, which is less a flaw in the theory than proof that it describes living practice. And every raga carries a **pakad**, a catch-phrase of a few notes that names it to any educated ear. The pakad is not a fixed tune that repeats identically. It is more like a fingerprint, a specific curl of specific notes that no other raga makes in quite the same way.

Now aim all of this at Yaman, the raga the Pune audience recognized. Yaman takes all seven notes, every one shuddha except the raised fourth, tivra Ma, and it is filed under Kalyan among the ten parent scales we will meet shortly. Its ascent is famously oblique: Ni Re Ga tivra-Ma Dha Ni Sa, gliding past Sa and Pa, which it touches only lightly on the way up; the descent restores the full ladder, Sa Ni Dha Pa tivra-Ma Ga Re Sa. The vadi is Ga, the samvadi Ni, and the pakad, Ni Re Ga, is exactly the three-note signature the vocalist sang. The tivra Ma is the engine of the raga's character, a leading tone in the middle of the octave, forever pulling upward toward Pa without quite arriving, which is why Yaman's serenity always carries a thread of longing.



The anatomy of Yaman on a single card: oblique ascent and full descent, the raised Ma, vadi Ga and samvadi Ni, the pakad, and the first watch of the night.

Yaman is assigned the first prahar, or watch, of the night, roughly six to nine, and it is traditionally the first major raga given to a serious student: its grammar is clean enough to learn in a month and deep enough to occupy

a lifetime. A common variant, Yaman-Kalyan, admits the natural Ma as a passing tone in descent, a small courtesy between two forms of the fourth. Listen to any fine Yaman and follow the gravity: every phrase, however far it travels, leans home toward Ga.

CONCEPT

The Tanpura's Drone

Behind every performance in this chapter stands the tanpura: a long-necked lute with four or five strings, no frets, and no melody, tuned most often Pa, sa, sa, Sa and strummed in an endless slow cycle. It looks like the simplest instrument in Indian music. It is closer to the most sophisticated.

The secret is the bridge. Instead of a knife edge, the tanpura's bridge is a wide, gently curved plateau, and beneath each string the player slips a thread of cotton, the *jiva*, adjusted by ear to a sweet spot. As the string vibrates, its point of contact with the bridge rolls continuously, and the thread keeps that contact alive and nonlinear. Energy cascades into the high harmonics, producing *jvari*: a shimmering, slowly turning cloud of overtones far above the plucked fundamentals. The physicist C.V. Raman analyzed the effect in 1921, delighted to find the tanpura breaking the textbook rule that a harmonic silenced at the plucking point should stay silent.

The drone answers the question listeners raised on harmony always ask: where are the chords? The answer is that the drone is the harmonic context, sounding continuously. Every note of the raga is heard against the fixed Sa and its overtone cloud, so each interval is a felt, exact relationship rather than a step in a tempered grid; this is what lets Indian intonation stay just rather than averaged. Standard since roughly the sixteenth century, the drone is not accompaniment. It is the harmonic universe the raga lives in.

— Time Made Audible: Tala

Melody is half the frame. The other half is **tala**, the theory of musical time, and its central idea is the cycle. Where a Western time signature marks off identical bars that pass and are gone, a tala is a closed loop of a fixed number of beats, the *matras*, grouped into sections called *vibhags*, returning again and again for the length of a performance. The first beat of the loop, the *sam*, is the point of arrival where melody and drumming must converge. Its shadow is the *khali*, the empty beat, marked in the air with a wave of the hand instead of a clap, a deliberate lightness placed inside

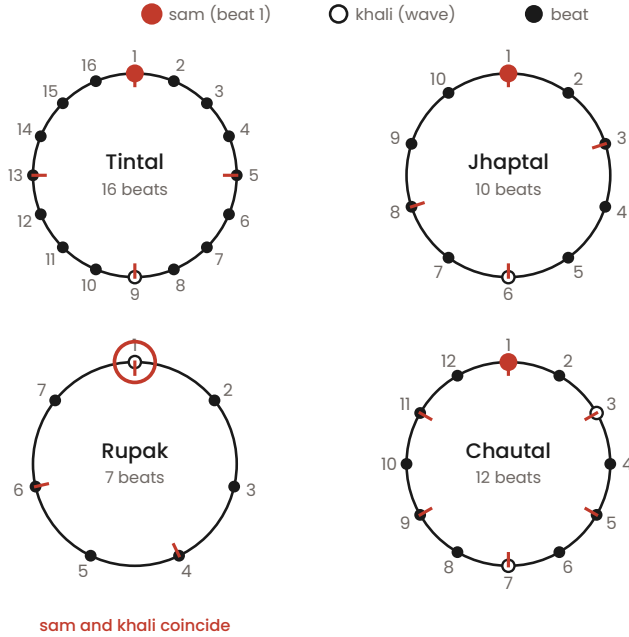
the cycle so that weight elsewhere means something. Audiences keep the count physically, clapping the strong vibhags and waving the khali, which is why concert halls in India are full of quietly moving hands.

The workhorse cycle of Hindustani music is Tintal: sixteen matras in four vibhags of four, claps on beats one, five, and thirteen, the khali wave on nine. A drummer states it with a fixed pattern of strokes, the theka, learned as spoken syllables: dha dhin dhin dha, dha dhin dhin dha, dha tin tin ta, ta dhin dhin dha. Those syllables, the bols, are the drummer's alphabet, and entire compositions live in them. What the cycle creates above all is anticipation. A soloist departs from the sam, spins away through improvisation, and the audience, counting in its bones, leans forward as the cycle closes, because everyone knows where the music must land. Musicians sharpen the arrival with the tihai, a phrase played three times in succession and engineered so that its final stroke falls exactly on the sam; hear one land after a long flight and you will understand why Indian audiences audibly exhale. The sam is a promise made sixteen beats in advance, and the whole performance is the drama of keeping it.

The sam is a promise made sixteen beats in advance, and the whole performance is the drama of keeping it.

Other cycles carry other temperaments, as the figure lays out. Ektal spreads twelve matras across six vibhags of two and, taken at the crawling tempos of the great slow khayal, can stretch a single cycle past a minute, time dilated until each beat is a small country. Jhaptal is ten in the asymmetric grouping two three two three, khali on six, with a pleasing limp built into its stride. Rupak is the paradox: seven matras in three two two, and its sam is itself khali, so the cycle begins on emptiness and the music seems to float free of its own anchor.

FOUR TALA CYCLES



Tintal, spoken

dha dhin dhin dha | dha dhin dhin dha | dha tin tin ta | ta dhin dhin dha

Cycles as clock faces: Tintal's sixteen beats with claps at one, five, and thirteen and the khali wave at nine; Jhaptal's ten in two three two three; and Rupak's seven, which begins on emptiness.

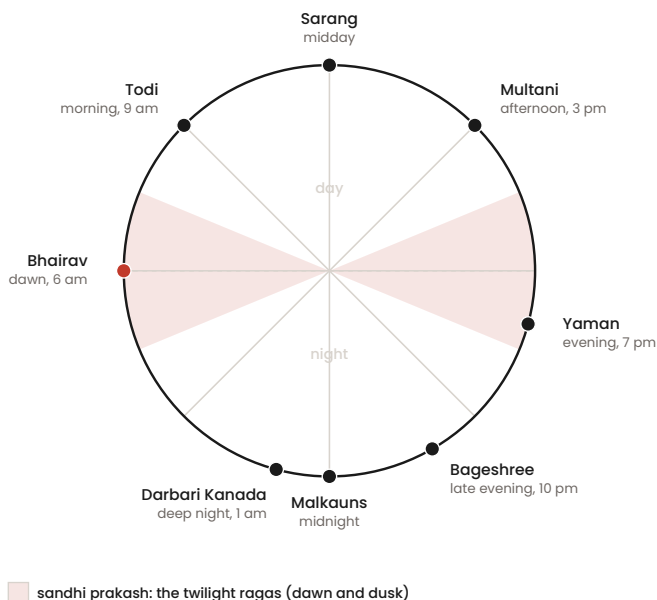
Two drums rule this world: the barrel-bodied pakhawaj that thunders under dhrupad, and the paired tabla whose eighteenth-century rise Chapter 10 recounts. The Carnatic south runs its own, differently ordered tala arithmetic, and the way an entire performance unfolds inside these cycles, from unmetered alap through the pulse of jor to composition and cascading tans, is drawn as a full arc in Chapter 17. For now it is enough to hear the principle: in India, time is not a grid that music fills. Time is audible architecture, and the tala is its floor plan.

— The Clock of Ragas

The most distinctive claim of Hindustani theory is that ragas keep hours. The day divides into eight praharas, watches of three hours each, and tradition assigns every raga a watch: Yaman to the first watch of night, Darbari to the deep night, Bhairav to dawn. At the two hinges of the day sit the sandhi-prakash ragas, the twilight ragas, marked by komal Re and komal Dha: the Bhairav family at daybreak, Marwa and Purvi as the light fails. Broad rules of thumb connect scale to clock, tivra Ma and weight in the lower half of the octave leaning toward evening, shuddha notes and upper-register emphasis toward morning and midday. The Carnatic tradition largely let its time rules lapse centuries ago; the north kept them, and a Hindustani musician still feels a small transgression in singing a morning raga after dark.

THE SAMAY CHAKRA: RAGAS BY THE CLOCK

24-hour day, 8 praharas of 3 hours each



The raga day: eight praharas of three hours around one wheel, twilight ragas at the two hinges of dawn and dusk, deep-night ragas at the bottom.

The man who systematized the clock also built the modern filing cabinet. Vishnu Narayan Bhatkhande, born in Bombay in 1860 and dead in 1936, abandoned a legal career to spend decades collecting compositions from hereditary musicians across the subcontinent, publishing the results in his multi-volume Hindustani Sangeet Paddhati. He organized the sprawling raga inventory around the parent scale, or **thaat**, defining ten by note content: Bilawal, Kalyan, Khamaj, Bhairav, Purvi, Marwa, Kafi, Asavari, Bhairavi, and Todi. Every Hindustani raga is assigned to one, and he codified **samay**, the time theory, alongside. (His reforming contemporary and rival, Vishnu Digambar Paluskar, and what the pair together did to Indian music education, wait in Chapter 19.) The system is knowingly imperfect, as critics from the musicologist N.A. Jairazbhoy onward have detailed: some ragas straddle categories, Ahir Bhairav being a famous refugee, and two ragas sharing a thaat can be perfect strangers in performance, as Bhupali and Deshkar already showed us. Bhatkhande understood this. A thaat is a filing system, not a physics, and as a filing system for several hundred living ragas, it works. The south solved the same problem more ruthlessly: its seventy-two melakarta scheme generates every possible parent scale by combinatorics, a story Chapter 17 tells.

The clock, meanwhile, has met the concert age. Global tours and festival programming put dawn ragas on nine p.m. stages, usually with a spoken apology that has itself become a convention. Yet the associations refuse to die: teaching still follows the wheel, and a musician who has sung Bhairav at a thousand sunrises will tell you the raga simply weighs more at that hour. Whether the hour shapes the raga or the raga has taught generations how the hour feels is a question theory cannot settle. The wheel keeps turning either way.

— Five Portraits

Yaman was the first portrait. Here are four more, each showing a different way a raga builds its identity: from altered notes, from strategic absence, from one ornamented tone, from a single borrowed inflection.

Bhairav owns the dawn. It names its own thaat and takes komal Re and komal Dha, and both altered notes are sung with a slow, grave oscillation, an andolan, as if each were being weighed in the hand. Here the theory of emphasis lands on the alterations themselves: the vadi is komal Dha and the samvadi komal Re, so the raga's two pillars are precisely its two dark-

ened notes, and the melody keeps returning to lean on them. The effect is what Sanskrit aestheticians call *gambhira*, deep and grave. Tradition associates Bhairav with Shiva in his ascetic stillness, and its measured tread, that flattened Re stepping down onto Sa like a long exhale, remains north India's sound for first light.

Bageshree belongs to the small hours, filed under Kafi, and it is a study in strategic absence. Its material is komal Ga and komal Ni with all other notes shuddha, the natural Re included. The ascent leaves out Re and Pa entirely, Sa komal-Ga Ma Dha komal-Ni Sa, while the descent readmits them, Re fully and Pa sparingly, a color touched in passing phrases such as Ma Pa Dha Ma rather than a resting place. The vadi is Ma, the samvadi Sa. The asymmetry does emotional work: the raga is forever reaching in ascent for notes it only grants itself coming down, and singers have always heard in that shape its assigned *rasa*, the ache of separation, the beloved not yet returned at midnight.

Darbari Kanada is the heaviest object in the Hindustani sky. Assigned to the Asavari thaat and the deep night, it takes komal Ga, Dha, and Ni, and its vadi is Re with Pa as samvadi. Tradition credits it to Miyan Tansen at Akbar's court, a story Chapter 10 will weigh; what is certain is the raga's aristocratic gravity, unfolding at tempos so slow the tala cycle itself seems to breathe. Its signature is a single treated note: the komal Ga, sung *ati-komal* and carried on a slow *andolan*, an oscillation that is neither ornament nor plain pitch. That wavering Ga is Darbari's seal, and a musician who plays a plain komal Ga without the oscillation will produce a raga that sounds like Darbari but isn't quite right, the way a sentence with the wrong word is grammatical but wrong.

Bihag, filed under Bilawal, is the night's bright face, the raga of weddings and arrivals. Its vadi is Ga, its samvadi Ni, and its ascent is pentatonic, Ni Sa Ga Ma Pa Ni Sa, omitting Re and Dha, which the full descent restores. Its subtlety is a borrowed inflection: alongside its pillar, the shuddha Ma, Bihag admits *tivra* Ma as a passing glint in descent, in phrases that slide Pa *tivra*-Ma Ga, a momentary borrowing of Yaman's yearning inside an otherwise sunny frame. Bihag is often called cheerful, which undersells it; say instead that of all the night ragas, it is the one that meets the listener more than halfway.

Set the five portraits side by side and the deeper point comes into focus: the sheer density of information a raga name carries. Announce Darbari Kanada and you have specified notes, hierarchy, ornament, hour,

tempo, and temperament in two words; the name invokes an entire inherited framework of feeling. This is what the student absorbs through years of practice, and what the Pune listener exercised in three notes: not trivia, but a shared language for organizing emotional experience, refined continuously for two thousand years. The theory is the music, and the music is the theory, and neither makes complete sense without the other.

LISTENING NOTES

♪ **Zia Mohiuddin Dagar, Raga Yaman (Nimbus Records)**

A whole evening inside one raga on the rudra veena; hear Ga become home, and the raised Ma pull every phrase toward a Pa it rarely grants.

♪ **Amir Khan, Raga Darbari Kanada**

The slow khayal at its deepest; wait for the ati-komal Ga and its andolan, the wavering that no plain note could replace.

♪ **Kesarbai Kerkar, Jaat Kahan Ho (Raga Bhairavi)**

A three-minute 78 so complete it was chosen for the Voyager Golden Record; proof of how much raga fits in almost no time at all.

♪ **Ali Akbar Khan, Music of India: Morning and Evening Ragas**

The 1955 LP that carried the raga system to the West, its very title an argument for samay; Chapter 20 tells the story of its journey.

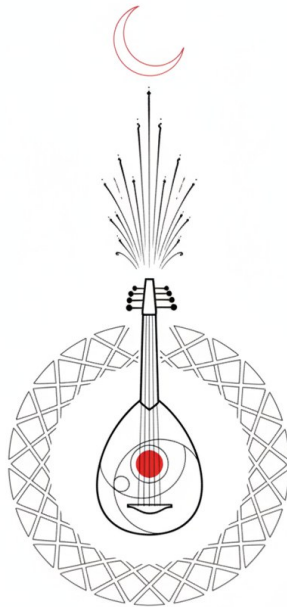
♪ **Alla Rakha and Zakir Hussain, Tabla Duet**

Father and son inside the Tintal cycle; count to sixteen, feel for the khali at nine, and notice your body learning to expect the sam.



PART II

The Islamic Golden Age



From Bukhara to Cordoba, poets and philosophers built the most sophisticated musical science of the medieval world, wrote it down, argued over it, and carried it west into Europe's awakening.



THE ISLAMIC GOLDEN AGE — CHAPTER 5

Poets of the Court: Music in Medieval Persia

A poet sang one verse about the scent of a river, and a king rode home without his boots. In Persia, poetry and music were never two arts. They were one.

590 TO 1435 CE

• BUKHARA, GHAZNI, BAGHDAD, HERAT

غزل

ghazal • the lyric of love

The amir has not seen his capital in four years. He came to Herat for a season, and the season quietly became a residency: the air is mild, the fruit is famous, and every time the court packs to move, Nasr II discovers a garden he has not yet sat in. Back in Bukhara the business of the Samanid state is going gently to seed. His courtiers have tried petitions. They have tried flattery, the treasury argument, the frontier argument. The amir agrees

with every word and stays.

So they turn to the one instrument of persuasion they have not used, and it is an actual instrument. They go to Rudaki, the most celebrated poet and musician of the age, and promise him a fortune if he can accomplish with song what politics cannot. At the morning wine, the story goes, Rudaki settles his chang against his shoulder, waits for the cup to pass, and begins a poem so plain a child could carry it: the scent of the Muliyan stream is reaching us, the memory of a kind friend is reaching us. Verse by verse he walks the king home. The sands of the Amu turn soft as silk under royal hooves; the river rises, rejoicing, to the horse's girth; Bukhara greets the returning moon. Nasr II, so moved that he mounted his horse without even waiting to put on his boots, rode for Bukhara on the spot. His riding boots, one chronicler reports with satisfaction, chased him for two leagues.

We owe the scene to Nizami Aruzi, a court writer who collected exemplary anecdotes two centuries after the fact, and it has surely been polished far past whatever happened that morning. But like the best court legends, it preserves the true theory of the world that told it. In tenth century Bukhara, music was not decoration, and it was not entertainment between decisions. It was a working technology of feeling, able to reach a ruler that argument could not touch, and its master practitioner held rank accordingly. Beneath that theory lies a deeper one, and the deeper one is the thesis of this chapter: in Persia, poetry and music were not distinct arts that occasionally collaborated. They were one art, practiced by the same people, judged by the same standards, experienced as a single thing. Keep that in view through everything that follows, because every court, treatise, and instrument in this chapter exists to serve it.

*Poetry and music were not distinct arts that
occasionally collaborated. They were one art.*

--- The Song That Moved a King

The dynasty Rudaki sang for ruled Khorasan and Transoxiana from roughly 875 to 999, and its capital was one of the engine rooms of the me-

dieval world. The Samanids drew philosophers, physicians, mathematicians, and poets to Bukhara the way Baghdad had drawn them a century earlier, and they did it with a deliberate political purpose. Persian, partly displaced by Arabic in the centuries after the Arab conquest, was being restored as a language of high literature, and the restoration was policy as much as taste: a court that sang in Persian was announcing a cultural identity distinct from the caliphate to the west. Rudaki, who composed in Persian with a fluency no predecessor had matched, was the central instrument of that project, and the fact that the instrument could also literally play and sing made him more valuable still.

The city rewarded intellect in every discipline. The young Ibn Sina, admitted to the amir's library as a reward for a medical cure, described shelves of books whose like he never saw again; he was formed in Bukhara's library, though the encyclopedia the West knows him for, the *Kitab al-Shifa*, was written decades later and hundreds of miles away, in Hamadan and Isfahan. The detail matters beyond pedantry. Bukhara was where a mind was made, not where every great book was finished, and its real export was people: poets, scholars, and musicians who carried the Samanid synthesis of Persian language and Islamic learning across the entire eastern half of the Muslim world.

Within that synthesis, the poet-musician occupied a position of genuine influence rather than mere prestige. The story of the boots is one witness. Another is the sheer scale of reward the sources describe: purses of gold, strings of camels, estates. A third is the durability of the professional type itself. For the next five centuries, from Ghazni to Shiraz to Herat, the figure of the singer whose verse could reach a ruler's inner life would remain a fixture of Persian courts, and the conviction underneath it, that sung poetry is the most direct route to human feeling, would remain the organizing belief of Persian music.

FIGURE

Rudaki, the Blind Singer of Bukhara

Abu Abdallah Jafar Rudaki was born around 858 in the village of Rudak, in the hills near Samarkand, and died around 941 in the same countryside, having been, in between, the most famous man of letters in the Persian-speaking world. Tradition calls him the father of Persian poetry. Of the vast

corpus later writers credited to him, barely a thousand lines survive.

The tradition also calls him blind, and here the record forks. The classical account makes him blind from birth, a Persian Homer singing an inner world he had never seen; skeptics noticed centuries ago that his verses are full of color, wine glinting in the cup, the red of a beloved's cheek, and wondered how a man born blind saw so much. The second tradition answers grimly. In 1940 Soviet scholars, guided by the Tajik writer Sadriddin Ayni, located Rudaki's grave at Panjrud, and the anthropologist Mikhail Gerasimov examined the skeleton. He read in the eye sockets the marks of blinding, probably by fire, late in life, and in the broken bones the record of a hard fall from favor, which fits what the chronicles hint: that when his patrons were purged around 940, the old poet was ruined with them and sent home to his village, poor and dark.

Both Rudakis, the seer born sightless and the singer blinded for politics, have been carried forward by the tradition. The reconstruction Gerasimov modeled from the skull now stands in bronze across Tajikistan: a man with a lined face and empty eyes, holding a harp.

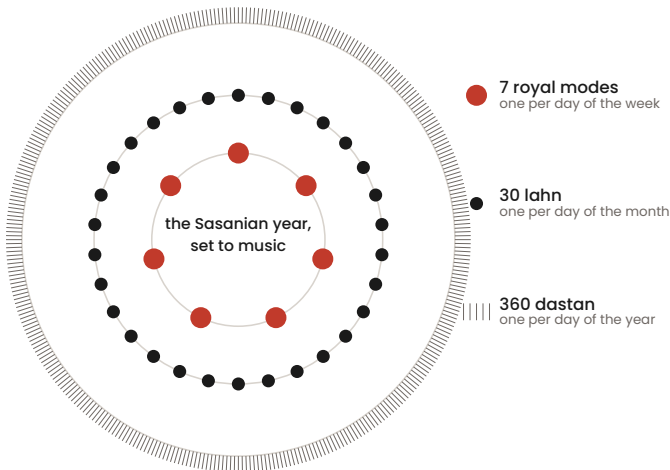
— Barbad and the Sasanian Inheritance

The Samanid faith in music's power was not an Islamic invention. It was an inheritance from the empire the Arab armies had toppled, and Persian memory attached that inheritance to one name. Barbad was chief minstrel to Khosrow II, the last great Sasanian king, who reigned from 590 to 628, and at Taq-e Bostan you can still see the world he worked in carved into the cliff: the king's boat glides through a royal marsh hunt while women lean into the strings of angular harps, an orchestra in stone. The court that commissioned those reliefs ranked its singers among the highest orders of courtiers, and later Persian writers never tired of explaining why. Ferdowsi has Barbad win his place by hiding in a cypress tree and singing three songs over the king's wine, invisible, until Khosrow demands the voice be found and clothed in honor; the titles of the three songs were still being copied by connoisseurs four centuries later.

To Barbad the tradition ascribes a complete musical cosmos: seven royal modes called the *khosravani*, thirty derivative airs, and three hundred sixty melodies, one for each day of the Zoroastrian year. The numbers are the point. Seven days of the week, thirty days of the month, three hundred sixty days of the year: the system, as the figure shows, maps the calendar itself, an empire's time rendered as repertoire. And it must be said

plainly that this is legend, not documentation. No Sasanian source survives to confirm any of it; the scheme reaches us through Islamic-era writers, Ibn Khurradadhbih and al-Tha'alibi among them, romancing an empire already gone, and the musicologist Firoozeh Khazrai has warned that many such attributions “should be regarded as authorial inventions.” What the legend witnesses is real all the same: a memory, cherished for a millennium, of court music so integrated into cosmic order that its playlist was a calendar.

BARBAD'S SYSTEM, AS REMEMBERED



as later Islamic-era writers remembered it

The system legend gives to Barbad: seven royal modes, thirty airs, and three hundred sixty melodies, nested like the Zoroastrian calendar's weeks, months, and days. A repertoire shaped like a year.

One piece of the Sasanian sound world we can hold in our hands, at least organologically. The *barbat*, a short-necked lute with a pear-shaped body carved from one piece of wood, was the workhorse of Persian courtly music, and when the Arab conquest absorbed the Sasanian world, the instrument crossed into Arab hands and became the *oud*. Note carefully what traveled:

the instrument, not the name. The Arabic word *oud* means simply “the wood”; the Persian name *barbat* stayed behind and stayed in use. This double life, one lute under two names spreading in two directions, is the first leg of a journey Chapter 9 follows all the way to the European lute, and it is a fair emblem of how Persian music moved through the world: constantly exported, constantly renamed.

— One Art, Not Two

The forms this musical culture prized were poetic forms, and the point of listing them is that the distinction we might expect, between poem and song, never arrives. The **ghazal** is a lyric of love and longing, a chain of couplets bound by a single rhyme and refrain, and it became the beating heart of Persian song; Chapter 12 will take one apart on the page. The *qasida* is the long formal ode of praise, the form Rudaki used to move an amir. The *masnavi* is the rhyming-couplet form of narrative and epic, built for stories that run all night. A poet who could not sing, or at least recite with musical precision, was an incomplete poet; a musician who could not engage the meaning of the verse was an incomplete musician. Meters implied melodic behavior. Modes implied emotional registers, an idea Chapter 4 watched India engineer into the *raga* system, and which Persia pursued by binding mode to poem. These were not texts set to music. They were already music, composed with an ear for how they would sound when sung.

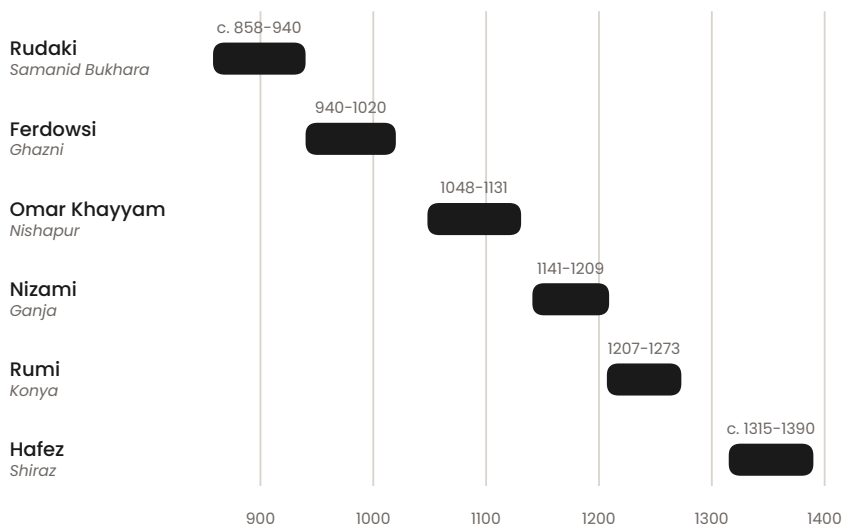
The *masnavi*’s supreme monument shows how far a “poem” could reach into performance. Ferdowsi’s *Shahnameh*, the Book of Kings, completed around 1010 after some thirty years of labor, runs to roughly fifty thousand couplets and is often described as the longest poem ever completed by a single author. Ferdowsi finished it under Mahmud of Ghazni, who famously paid the old poet an insulting fraction of what the work deserved, a betrayal that itself became part of Persian moral mythology: the artist wronged by power, dignity intact. The *Shahnameh* was built to be voiced. Its reciters developed heightened melodic delivery, with characteristic contours for battle, lament, and love scene, a practice whose formal guild organization belongs to later, Safavid times but whose roots are audibly medieval. Inside the poem, heroes sing before battles and lovers court in verses, evidence of how naturally Ferdowsi’s audience assumed that strong feeling takes musical form.

Omar Khayyam, born in 1048, mathematician and calendar reformer, poured his skepticism into the ruba'i, a four-line form with its own rhythmic snap, made for musical delivery at intimate gatherings. Sung, his praise of wine and the present hour in the face of death traveled under a kind of diplomatic immunity. You could say things in song that you might not say in a sermon. A century later Nizami Ganjavi wrapped the whole ideology in narrative gold. In his romance of Khosrow and Shirin, the king falls in love partly through song, and Barbad appears alongside a second musician, the harpist Nakisa, the two of them singing the lovers' hearts to each other across a palace wall. Nakisa is almost certainly a literary invention, but that only sharpens the testimony: when Persia imagined the deepest possible communication between souls, it imagined two musicians.

*You could say things in song that you might
not say in a sermon.*

The line of poet-musicians runs five centuries, as the figure traces, from Rudaki's Bukhara through Ghazni and Ganja to its culmination in Shiraz. Hafez, who died around 1390, wrote ghazals of such layered ambiguity, wine that is also grace, a beloved who is also God, that they have been sung continuously from his lifetime to this morning; to perform Persian classical music today is, to a remarkable degree, to perform Hafez. Listen to any modern avaz recording and notice which words the singer ornaments and which are delivered plain. That choice, the musical marking of a poem's emotional hierarchy, is the medieval unity of the two arts, still operating.

POETS OF THE PERSIANATE COURT, 850–1400 CE

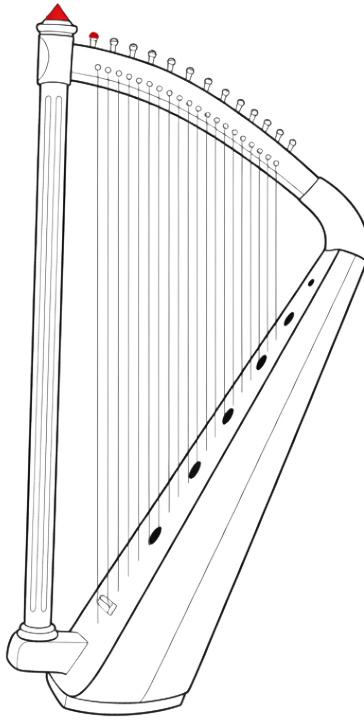


Five centuries of poet-musicians: Rudaki in Samanid Bukhara, Ferdowsi under Mahmud of Ghazni, Khayyam in Nishapur, Nizami in Ganja, Rumi in Konya, Hafez in Shiraz. The courts change; the union of poem and song does not.

— The Instruments of the Medieval Court

What did this music actually sound like? Start with what the medieval sources and miniatures show in musicians' hands, because it is not the ensemble a modern Iranian concert stage would suggest. The court instrumentarium of the Samanid, Ghaznavid, and later medieval courts centered on five voices. The **barbat**, the pear-bodied lute of the Barbad legend, gave plucked-string authority and carried the art of accompaniment. The **chang**, the angular harp of the Taq-e Bostan reliefs, was the glamour instrument of the age: a soundbox held against the chest with open strings rising at an angle, played by men and famously by women, the instrument Rudaki cradles in the story of the boots. Persian painting kept the chang in its musicians' hands for centuries more, and then history retired it; by early modern times the harp had lost ground to hammered strings and lutes and

quietly vanished from Persian practice. Its silhouette survives as one of the loveliest ghosts in Persian art.



The chang, the angular harp of Sasanian and medieval Persian courts: open strings rising from a chest-held soundbox. The instrument of the Rudaki legend, extinct in Persia for centuries, alive in every miniature.

Beside harp and lute stood the tanbur, a long-necked lute with a small body, a handful of strings, and frets that made it a favorite of theorists, because frets turn tuning into geometry you can measure; al-Farabi, whom we are about to meet, documented the fretting of the tanbur players of Baghdad as carefully as a naturalist recording a species. The ud, the barbat's Arabized descendant, played the opposite role: its short fretless neck and paired courses of strings made it the laboratory bench of medieval music science, the smooth surface on which a theorist could show an interval as a measured length of string and a neutral third as a fingertip's width of doubt. The ney, the end-blown reed flute, supplied the ensemble's breath,

and the daf, a broad frame drum with rings jingling inside its rim, supplied its pulse, from deep resonant strokes to high shimmering tremors. Combinations were fluid; nothing resembling a fixed orchestra existed, and the voice remained sovereign. Instruments existed, in the Persian understanding, to support, ornament, and extend the sung poem, never to replace it.

Now note three famous absentees. The tar, the double-bellied lute whose skin-topped sound now defines Iranian classical music; the setar, its small, whispering cousin; the santur, the hammered dulcimer of glittering wire: none of these belongs to the medieval court. They are later arrivals, descendants and refinements that rose to prominence in Safavid and, above all, Qajar times, and a listener who imagines Rudaki with a santur is hearing the nineteenth century, not the tenth. This book will put those instruments in your hands at the proper moment, in Chapter 12 and beyond. The correction is worth a paragraph because it teaches a method: instruments have biographies, and dating them honestly is how music history keeps from becoming costume drama.

— The Theorists: From al-Farabi to Maraghi

Chapter 4 watched India build a complete science of melody and feeling. The Islamic world built its own, in Arabic and then Persian, and its first towering figure came from the Samanid orbit: al-Farabi, born around 872 in Transoxiana, died 950 in Damascus, known to the medieval world as the Second Teacher, second only to Aristotle. His *Kitab al-Musiqa al-Kabir*, the Great Book of Music, is the most sophisticated musical treatise of its age in any language. He separated speculative theory from practical music-making, analyzed intervals and tetrachords with Greek rigor, and, crucially for us, measured real instruments: the frettings of the tanbur of Baghdad and of Khurasan, and the oud fret called the wusta Zalzal that produced a third neither major nor minor. That neutral third, the note between the notes, is the DNA of the entire modal world Chapter 7 maps. Al-Farabi also, with a physicist's shrug, rejected the audible music of the spheres; the heavens, he reasoned, make no sound. Ibn Sina, his greatest successor, agreed, and the music section of the *Shifa* treats melody, interval, and ornament as empirical matters for human science rather than celestial numerology.

Then comes the second act of medieval Islamic theory, and it opens in catastrophe. Safi al-Din al-Urmawi, born around 1216, served the last Ab-

basid caliph in Baghdad as calligrapher, librarian, and boon-companion musician, and wrote the *Kitab al-Adwar*, the Book of Cycles, around 1252, probably while working in the caliphal library. Six years later the Mongols took Baghdad and killed his employer. Safi al-Din survived, by tradition because his playing charmed Hulagu himself, and passed into the service of the new order's ministers; he died in 1294, imprisoned, biographers report, over a debt of three hundred dinars, though the detail is tradition rather than document. His achievement outlived every patron. He divided the octave into seventeen steps and organized melodic practice into twelve principal modes, the *shudud*, with six secondary *avazat*: the direct ancestors of the named *maqamat*, *dastgahs*, and *makams* of the modern Middle East. The school he founded, the Systematists, dominated music theory from Cairo to Samarkand for four hundred years, and the modern scholar Owen Wright has spent a career reconstructing from its treatises exactly how the modal world of 1250 to 1300 sounded on paper. Chapter 9 follows the westward journey of this body of thought, and its misadventures in translation.

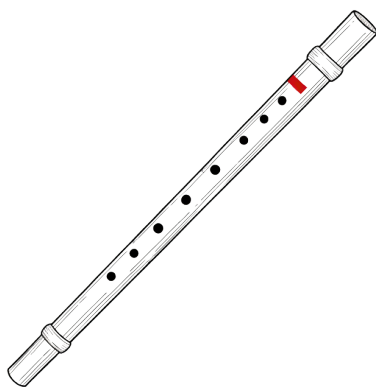
The last great Systematist closes this chapter's dateline. Abd al-Qadir Maraghi, born around 1353 in Maragha, served the Jalayirid sultans in Tabriz and Baghdad, was carried off to Samarkand by Timur in 1393 as living plunder, and ended his days at the brilliant Timurid court of Herat, where he died in the plague year 1435. His *Jami al-Alhan*, the Compendium of Melodies, fixed the Systematist inheritance in Persian and added what earlier theorists rarely bothered with: descriptions of actual repertoire, instruments, and performance. Persian, Azerbaijani, and Turkish musicians all claim him today, each with some justice, and Chapter 12 will show Ottoman musicians canonizing him as their founding master. That a theorist who died in Herat in 1435 could be adopted as the fountainhead of Istanbul's classical music is the whole story of this chapter in miniature: Persian musical thought had become the common property of half the world.

— The Reed Flute's Lament

Court walls could not contain any of this. From the tenth century onward, the Sufi orders spreading through the Persian-speaking world made music central to their devotional practice, and they gave it a name that is really a definition: **sama**, the listening. Sama was not passive hearing but a

disciplined, receptive audition in which music, and sometimes movement, became a vehicle for approaching God. Orthodox jurists were suspicious, and some condemned music outright; the argument ran through Islamic intellectual life for centuries. Its most influential resolution came from al-Ghazali, the great theologian who died in 1111, who ruled for conditional permission: music is lawful when the context, purpose, and content are sound, and what it awakens depends on what is already in the heart. His caution tells us something his rigorist opponents would have hated to admit. Music was too deeply woven into Persian life to prohibit.

The instrument of sama was the **ney**, and it earns its full portrait here. A length of reed, open at both ends, blown against the edge so that every note carries the players breath inside it, the ney produces a sound Persian musicians describe as the most human of instrument voices, closest to the sound of breath itself, which is to say closest to the sound of life. When Jalal al-Din Rumi, the Konya mystic who died in 1273, opened his *Masnavi*, he opened it with this instrument: listen to the reed, the poem begins, telling its tale of separations, crying for the reed-bed from which it was cut. The reed is the soul, exiled from its divine origin; its song is longing itself. With those lines Rumi made a folk flute the theological center of an entire devotional civilization, and gave the poet-musician thesis of this chapter its ultimate form: here even the instrument is a poem. Chapter 12 walks into the ceremony his followers built, where the ney's first breath opens the rite of the whirling dervishes.



The ney, an end-blown reed flute open at both ends: breath, pitch, and sigh in a single column of air. In Sufi hearing, the reed cries for the reed-bed it was cut from.

Notice, finally, how permeable the boundaries were. The ney that mourned in the Sufi lodge played at court banquets. The daf that drove a palace entertainment kept time in the ritual of a dervish order. Musicians moved between wine gathering and prayer gathering carrying the same repertoire of modes and the same poets, above all Hafez, whose ambiguity was built for exactly this double life. Court art, religious practice, philosophical discipline, private pleasure: Persian music was all of these at once, layered rather than divided.

— What Survived

Be precise about what did not survive. The melodies of Barbad are gone. The Samanid court's actual songs are gone. Even the system Safi al-Din codified survives as theory rather than as sounding repertoire, and the dastgah system that organizes Persian classical music today, with its radif of memorized models, took definitive shape only in the nineteenth century, under the Qajars; Chapter 7 tells that story and Chapter 12 explains the long Safavid silence that made a reconstruction necessary. Persian music's continuity is real, but it is not a continuity of pieces. It is a continuity of convictions.

Count what those convictions are, because the rest of this book keeps meeting them. That sung poetry is the most direct available route to human feeling. That a mode is an emotional environment rather than a scale, a belief Persia shares with the raga world of Chapter 4 and bequeathed to the entire maqam family of Chapter 7. That the performer's task is to inhabit a poem, marking its inner hierarchy through ornament, timing, and restraint. That music can carry meanings, mystical, philosophical, even political, that plain speech cannot safely hold. A tar player today will slow almost to stillness before the phrase that matters; a singer will let a line of Hafez hang unresolved a heartbeat longer than the meter demands. Rudaki would have recognized the technique instantly, whatever he made of the instrument.

The medieval Persian court gave Eastern music one of its most durable ideas: that the highest musical achievement is not virtuosity, nor complexity, nor even invention, but the capacity to serve the poem. Everything else, the modes, the instruments, the theory of seventeen steps and twelve modes, exists in relation to that service. The poem is the center, and the music is how the poem becomes fully itself. A thousand years after a harpist sang a homesick king onto his horse, that is still the standard by which Per-

sian musicians are judged, and when the singing is good, audiences from Tehran to Toronto still do what Nasr II did. They stop deliberating, and they go where the poem takes them.

LISTENING NOTES

♪ **Mohammad Reza Shajarian, Bidad**

The supreme modern Persian voice, with Parviz Meshkatian's ensemble, inhabiting classical ghazals in dastgah Homayun; hear how ornament falls only on the words that carry the poem's weight.

♪ **Kayhan Kalhor and Erdal Erzincan, The Wind**

Persian kamancheh in duet with the Anatolian baglama across the old frontier; the same modal imagination reaching, as it always did, west toward the Ottoman world of Chapter 12.

♪ **Hossein Alizadeh, Ney Nava**

Alizadeh's beloved suite setting the ney against strings; the reed's breath-voice, the sound this chapter calls closest to life, carried across a full dastgah journey.

♪ **Dariush Talai, Radif of Mirza Abdollah**

The canonical corpus of Persian classical music played plain on tar and setar: the nineteenth century's reconstruction of everything this chapter's courts remembered.





THE ISLAMIC GOLDEN AGE — CHAPTER 6

Ziryab's World: Al Andalus and the Islamic West

He arrived in Cordoba with a lute, a legend, and five hundred songs he said came to him in dreams. What Ziryab actually built outlived every court that paid him: a music that still plays from Fez to Tunis.

822 TO 1492

• CORDOBA, SEVILLE, GRANADA, FEZ



al-ud · the wood

The story, polished by eight centuries of retelling, goes like this. In the year 822 a traveler comes up the road from the southern coast toward Cordoba, and the new ruler of al-Andalus rides out to receive him. Abd al-Rahman II has been emir for a matter of weeks. He has letters to answer, a treasury to secure, ambitious relatives to watch. Instead he is on the road with an escort of honor, going out to meet a singer, a welcome that protocol reserved for princes and visiting scholars. The court notices, which is precisely the

point.

The traveler is a man of about thirty three, born in Baghdad, famous in Cordoba entirely at second hand. His name is Abu al-Hasan Ali ibn Nafi, but everyone uses the nickname: Ziryab, the blackbird, for his dark skin and the sweetness of his voice. He carries an oud he has rebuilt to his own design, and a repertoire he declines to explain. He claimed the inspiration had come to him in dreams, that a spirit had taught him five hundred songs while he slept. The court chose to believe him, or chose to enjoy not believing him, which for a performer amounts to the same welcome.

Nearly every detail of that scene reaches us late, embellished, or flatly invented, and this chapter will sort out which is which. The consequence, however, is not invented. Within a generation, the westernmost court of the Islamic world had a school of music with a method, a suite form with an architecture, and trained professionals to carry both. That is the real story of Ziryab's world, and the claim this chapter will keep testing: charisma fades and courts fall, but teaching machinery survives, and a music lives exactly as long as its way of being taught. Follow the machinery far enough and it is still running, in Fez and Tlemcen and Tunis, tonight.

— The Blackbird Comes West

Ziryab's road began in the Baghdad of Chapter 5, at the Abbasid court where Ibrahim al-Mawsili and his son Ishaq presided over the classical Arab song tradition and curated the hundred chosen songs for the caliph. The story, told for centuries, is that Ziryab was Ishaq's pupil; that the caliph asked to hear the student; and that the student, invited to show a fraction of his training, unveiled a voice and a repertoire that eclipsed the master in one evening. Ishaq, in this telling, offered his pupil a choice between exile and unspecified consequences, and Ziryab chose the road.

It is a perfect story about teachers and students, which is one reason to be suspicious of it. The chronology creaks badly. Harun al-Rashid died in 809, when Ziryab, born around 789, was barely out of boyhood, and the more sober sources have him leaving Baghdad after the death of the caliph al-Amin in 813: one gifted musician among many displaced by civil war, rather than a prodigy fleeing a jealous master. The apprenticeship tale may hold a kernel of truth about where he trained. As drama, it was written afterward.

His itinerary, at least, is reasonably secure. He crossed North Africa and spent time at the Aghlabid court at Kairouan, in present day Tunisia, where the sources have him falling out with the emir and looking further west. Al-Hakam I, ruler of al-Andalus, extended an invitation; by the time Ziryab reached the strait in 822, al-Hakam was dead. His son Abd al-Rahman II renewed the offer, and the singer crossed over to a court eager to be dazzled.

One title matters here, because this book will need it again. Abd al-Rahman II was an emir, not a caliph. The Umayyads of Cordoba, descendants of the dynasty the Abbasids had overthrown, ruled al-Andalus as emirs for nearly two centuries; only in 929 did Abd al-Rahman III claim the caliphal title. The distinction is not pedantry. It measures Cordoba's ambition. In 822 the city was a provincial capital determined to behave like an imperial one, buying manuscripts, hiring scholars, importing Baghdad fashion at Baghdad prices, and a star of the eastern court, arriving in person, was the most conspicuous acquisition imaginable. The chroniclers itemize his contract with relish: a monthly salary, harvest bonuses, houses, land. Whatever the exact figures, Cordoba was paying for prestige, and knew it.

— What the Legend Says, What the Sources Say

The Ziryab of legend did far more than sing. He founded the first conservatory in the West. He added a fifth string to the oud. He replaced the wooden plectrum with an eagle's quill. He dictated the seasonal wardrobe of Cordoba, brought asparagus to the Andalusian table, popularized toothpaste, changed how people cut their hair, and taught the court to eat its meals in courses, soup before meat, sweet things last. In the popular literature he appears as the most influential tastemaker of the early medieval world, a one man civilizing mission.

The scholar who untangled this résumé is Dwight Reynolds, whose study of the Ziryab tradition traced nearly every colorful detail to a single late source: al-Maqqari, a North African compiler writing in the seventeenth century, roughly eight hundred years after the fact. Al-Maqqari was quoting the eleventh century Cordoban historian Ibn Hayyan, but quoting him selectively, silently deleting the rival singers who shared Abd al-Rahman II's patronage, the accomplishments of Ziryab's own children, and every anecdote that made the blackbird look vain or ridiculous. What

survived the trimming was a culture hero. What Ibn Hayyan actually describes is a brilliant, expensive, competitive court singer among several, whose most durable achievement was a family teaching enterprise that outlived him.

This does not make the legend worthless. Legends are data about desire: they record what a culture wants its founders to have been. Andalusis, and later Maghrebis, wanted their music to have a pedigree, an eastern master who brought Baghdad in his luggage and improved it. The historian's task is to keep both registers in view, the documented musician and the invented paragon, and to label which one is speaking. In this chapter, when the paragon speaks, the words legend or story will be nearby.

— The School and the Oud

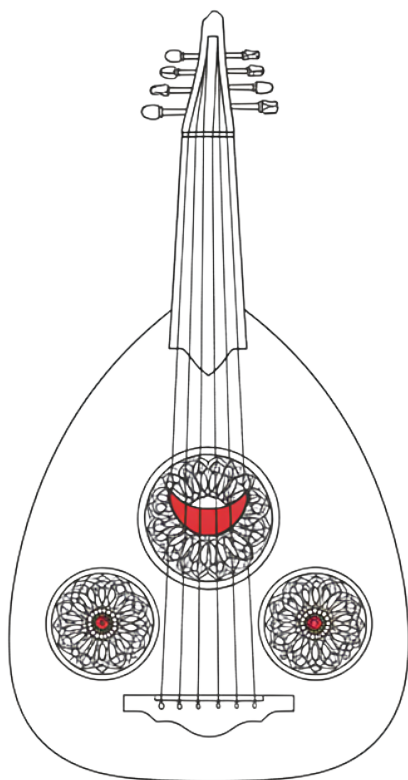
Strip the embroidery away and something solid remains, and it is the most important thing in this chapter. Ziryab ran a school, and the school had a method. The tradition describes a graduated curriculum: rhythm and basic technique first, then melody, then ornament and composition, with the student's voice tested and classified at the door. Whether or not it deserves the modern word conservatory, it was systematic instruction designed to produce professionals, and it kept producing them after its founder died, because his sons and daughters taught there. The students who came out of his school were Andalusians, not Iraqis. Within two generations its sound was a local dialect: Arabic in its foundations, Iberian in its accent.

*The students who came out of his school were
Andalusians, not Iraqis.*

What those students learned was the modal art of ninth century Baghdad, which organized melody by strings and finger positions, the classification associated with Ishaq al-Mawsili himself: the modal system that would later crystallize as maqam. The word maqam, as Chapter 7 shows, belongs to a later era; the thing itself, a repertoire of melodic characters with distinct temperaments and uses, was already the core of a musician's training. Students learned modes the way actors learn roles.

How closely that ninth century Andalusian practice matched the system later codified in the East is something scholars reconstruct rather than read off a page. Owen Wright, whose study of the modal systems of Arab and Persian music is the modern foundation for the whole subject, has shown how much of the medieval tradition must be inferred backward from thirteenth century theory, because the living music of Ziryab's Cordoba was never written down in any form that survives. The safest statement is the modest one. The raw material was the eastern art of Chapter 5, the barbat and the modes of Baghdad, and Andalusian musicians reshaped it into a regional style inside two generations.

The classroom, the laboratory, and the badge of office was the **oud**, whose Arabic name, *al-ud*, simply means the wood: a deep pear shaped body, a short neck without frets, paired strings driven by a plectrum. It was the default instrument of Arab music theory the way the piano would become the default instrument of European theory a thousand years later. You learn intervals on the oud; you learn modes on the oud; you learn the relationship between rhythm and melody on the oud. An unfretted neck hides nothing and forgives nothing: every interval is exactly where the hand puts it, which makes the instrument a teacher in itself.

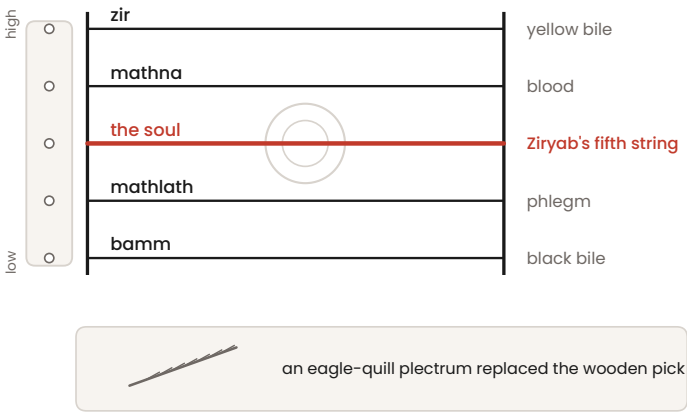


The oud: a deep pear shaped body, a short unfretted neck, and paired strings under a light plectrum. Listen for the dry snap of the attack dissolving into a round, woody sustain.

The oud of that era carried four courses, named from lowest to highest bamm, mathlath, mathna, and zir, and learned men had long mapped them onto the four humors of Galenic medicine, four strings for the four fluids that were thought to govern the body. Ziryab's celebrated addition, in the account al-Maqqari carried over from Ibn Hayyan, was a fifth string dyed red and set in the middle of the courses, between the mathna and the mathlath: the soul, seated among the four humors. The symbolism was not new; al-Kindi in Baghdad had already argued on paper for a fifth string on cosmological grounds, as the sidebar to Chapter 9 tells. But the image of the red string at the instrument's heart is the legend at its best: a technical upgrade, a wider range, wearing a philosopher's coat. To this the

tradition adds the eagle quill plectrum, lighter and more flexible than the old wooden pick, trading force for nuance.

THE OUD'S FOUR COURSES, AND ZIRYAB'S FIFTH



The four courses of the ninth century oud, bamm to zir, mapped onto the four humors, with the red fifth string of the Ziriyab legend set in the middle: the soul among the body's elements.

Notice what all of this is: pedagogy. A tested voice, a graded syllabus, a theory instrument, a symbol system a student can hold in the hand. Music schools are how oral traditions defeat time. A song lives one lifetime; a way of teaching songs can live twenty. This is the knowledge that travels poorly in texts and well in people, and Ziriyab's real bet, the one that paid for eleven centuries, was to invest in people.

FIGURE

The Singing Women of Cordoba

The professional musicians of the early Islamic world were very often women. The **qiyān** were enslaved singers trained to the highest standard of the age, schooled in repertoire, poetry, and wit; the ninth century essayist al-Jahiz devoted a famous epistle to them, half admiring and half alarmed at

their power over patrons.

Cordoba imported them. The chronicles describe singers brought from the East at great cost, among them three known as the Medinese: Fadl, Alam, and Qalam. Qalam, the sources say, was Basque born, captured young, trained in Medina, and returned to Iberia as one of the most learned musicians in the peninsula, a biography that crossed the sea twice before she was thirty.

Ziryab's school, too, ran on women. Ibn Hayyan names the master's daughters, Hamduna and Ulayya, among the teachers who carried the method after his death; al-Maqqari's flattering portrait trimmed the children away, and Reynolds restored them. Put the women back and the school looks like what it was: a family firm whose most reliable transmitters were its daughters.

Most qiyam left no names at all. The repertoire they carried is the repertoire that survived.

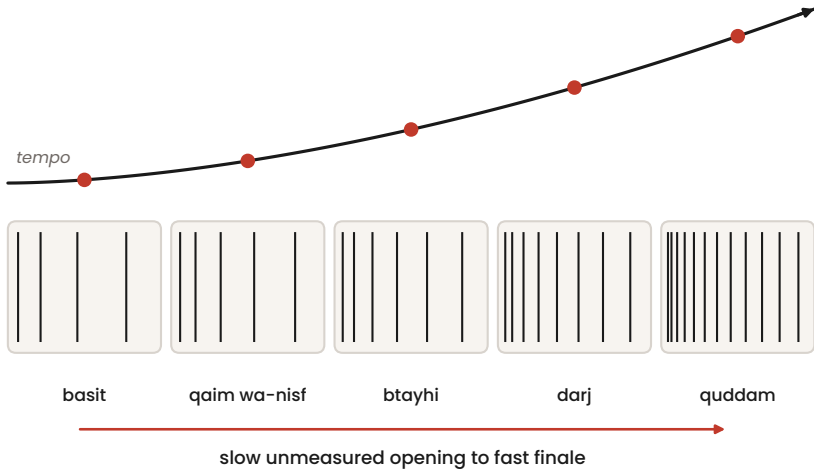
— The Nawba: Architecture of a Suite

The form most firmly attached to Ziryab's name is the **nawba**, and the attachment must be handled honestly. The word originally meant one's turn: at the Abbasid court, musicians performed in rotation before the patron, each taking his nawba. In North Africa the word came to name something grander, a suite of songs and instrumental pieces in a single mode, built to fill an evening. Tradition says Ziryab organized it. No document connects the suites sung today, movement by movement, to ninth century Cordoba; what the tradition asserts is descent, and what the historian can verify is the shape. The shape is worth the whole chapter.

Take the Moroccan form, al-Ala, the best preserved of the family. Each nuba, as the Maghreb spells it, inhabits one melodic mode and unfolds through five rhythmic phases called **mizan**: basit, qa'im wa-nisf, btayhi, darj, and quddam. Each mizan strings together songs, sana'i, that gather speed as the phase approaches its close; each new phase resets the pulse and drives it again. The whole suite is one long, controlled acceleration, from the broad ceremonial tread of the basit to the flying triple rhythm of the quddam, and a complete nuba, sung entire, fills a night. A nuba is not a concert program. It is a single feeling, ripened in real time.

A nuba is not a concert program. It is a single feeling, ripened in real time.

THE NAWBA: ONE SUITE, ALWAYS ACCELERATING



The architecture of a Moroccan nuba: five mizan, basit to quddam, each phase gathering speed toward its close, the whole suite one long controlled acceleration of feeling.

Listen to a recorded nuba and you can hear the architecture doing its work, as the figure traces it. Attend to the seams: the moment the darj releases into the quddam, when a rhythm that has been walking for twenty minutes suddenly dances, singers and orchestra lifting together as if the room itself had tilted. That engineered lift, arriving on schedule after an hour of preparation, is what the suite form is for.

Each nuba is built on a single melodic mode, and in the Maghreb these modes carry their own name, the tubu', singular tab', a word that means nature or temperament. They are the North African cousins of the eastern maqam that Chapter 7 anatomizes, and like the maqam a tab' is a character before it is a scale. That is why a full nuba can feel less like a sequence of tunes than like a long evening spent inside one emotional weather.

The suite is sung as much as played. A classical al-Ala orchestra sets voices against a compact band: the bowed rabab leading, the oud and the four course kwitra plucking beneath it, the violin held upright on the knee, and the clay taarija and the darbuka marking the mizan. Over them a chorus and soloists carry the poems, the same muwashshahat and zajal the next section describes, so that the suite's long acceleration is also the acceleration of a text. The words and the rhythm climb together, and when the quddam finally runs, it is the poem that is running.

The canon itself is a story of loss managed well. Moroccan tradition holds that twenty four nubat once existed and eleven survive, and the survivors owe their coherence to one man: Muhammad ibn al-Husayn al-Ha'ik of Tetouan, who late in the eighteenth century collected the texts into the songbook known as the Kunnash. Al-Ha'ik's anthology, not any medieval manuscript, is the constitution of the tradition; every al-Ala orchestra since has been, in effect, performing an edition of it. The honest genealogy of Andalusí music runs through an eighteenth century notebook, and the tradition is not diminished by saying so.

— Poetry in Two Tongues

Cordoba's other great invention was poetic, and here the record forces a correction that earlier tellings of this story, including the popular one, get wrong. The **muwashshah**, the strophic song form that became the vehicle of Andalusí music, was credited by the Andalusí critics themselves to Muqaddam ibn Mu'afa al-Qabri, a poet from the town of Cabra near Cordoba, active a generation after Ziryab's death. The old claim that Ziryab's school had a hand in inventing it has no evidence behind it whatsoever. The school trained the singers; the poets, later, built the vehicle.

What a vehicle it was. The muwashshah abandoned the single rhyme and single meter of the classical Arabic ode for stanzas: runs of new rhyme alternating with a returning rhyme, the qufl, that keeps pulling the poem home. And at the very end sits the form's signature, the **kharja**, the exit: the final qufl of the entire poem, where the register drops and often the language changes, from classical Arabic into colloquial speech or into Romance, the tongue that was becoming Spanish. After stanzas of ornate courtly longing, the poem hands its last words to somebody else, often a girl complaining about her lover in the language of the street. The kharja

functioned almost like a punch line: everything before it is preparation, and the release lands in another voice.

The *kharjas* turned out to be one of the great documents of medieval Europe. In 1948 the scholar Samuel Stern deciphered the closing lines of a series of Hebrew *muwashshahat*, poems by Andalusí Jewish poets built on the Arabic model, and found them to be in Romance: among the oldest recorded lyrics in any Iberian vernacular, preserved inside Hebrew poems shaped by an Arabic form. Poets such as Judah Halevi wrote masterpieces in this three cornered idiom. Alongside the *muwashshah* grew its street sibling, the *zajal*, composed entirely in colloquial Arabic, whose master Ibn Quzman of Cordoba, dead in 1160, filled it with taverns, scandal, and superb craft.

Set to music, these forms made specific demands. A *muwashshah* melody had to carry the shifting meters of the stanzas and then land the *kharja*'s turn, the singer ornamenting each repetition differently, reading the poem's rise, matching the stress of the Arabic to the placement of the beat. This is exacting work, and it is exactly what a graduated school existed to produce: not players who could execute a line but musicians who understood why the line moved as it did. In al-Andalus the poetry and the pedagogy were built for each other, which is the deepest sense in which Ziryab's school and Muqaddam's poem belong in one chapter.

A word often reached for here is *convivencia*, the coexistence of Muslims, Jews, and Christians in medieval Iberia, and the word needs a label: it is not Arabic and not medieval. It is modern Spanish, a coinage of twentieth century historiography associated with Americo Castro, and historians have argued ever since about how rosy a picture it paints; Maria Rosa Menocal's sympathetic account and its sterner critics are both right about different streets. The *kharjas* cannot settle that argument, but they are physical evidence of the part that matters for music: in al-Andalus, languages shared songs.

— The Debate Over the Troubadours

Did this music cross into Christian Europe? In one direction the evidence is documentary. The *Cantigas de Santa Maria*, more than four hundred songs to the Virgin in Galician-Portuguese compiled in the late thirteenth century under Alfonso X of Castile, are full of strophic designs related to the *zajal*, and the manuscripts' miniatures show Christian and Muslim musicians

side by side, holding the same lutes and fiddles. A court that painted that picture was a court where the two musics were heard in the same rooms.

Those manuscripts are, in fact, one of the richest pictures of medieval instruments that survives anywhere. Their miniatures show dozens of instruments in careful detail, ouds and rebabs, psalteries and shawms, drums and early fiddles, in the hands of musicians whose dress marks some as Muslim and some as Christian. Organologists study those pages closely, because instruments crossed the religious frontier far more freely than doctrines did, a point Chapter 9 develops as the plainest evidence of contact between the two worlds. Whatever the painter idealized about concord between faiths, the instruments he drew were real, and they were shared.

The troubadours are the contested case. The lyric poets of southern France, beginning with William IX of Aquitaine around 1100, founded the European tradition of courtly song, and for a century scholars have argued over its debts to al-Andalus. The Arabist case notes the structural kinship of strophe and refrain, the shared cult of the unattainable beloved, and the traffic of the frontier: chroniclers record that the raid on Barbastro in 1064 sent captive singers north into French courts a generation before William wrote. Henry George Farmer pressed the maximal version of this argument in the 1920s and 1930s and was long dismissed for it. The skeptics reply that love poetry arises independently everywhere, and that resemblance is not transmission. The honest verdict is a verdict of influence without receipts: the channels existed, the parallels are real, the documents are missing. This book states it that way and moves on.

One adjacent claim, though, must be retired outright: the assertion that the modal theory of Gregorian chant derives from Arabic categories. Chronology forbids it. Carolingian theorists organized the eight church modes in the ninth century, drawing on the Byzantine *oktoechos* and on Boethius, generations before any Arabic treatise reached Latin. What Arabic learning did reshape was something larger: where music sat on the map of knowledge, its standing as a science one could study alongside arithmetic and astronomy. That transfer is real, traceable, and stranger than the myth, and Chapter 9 follows its paper trail through Toledo.

— The Long Diaspora

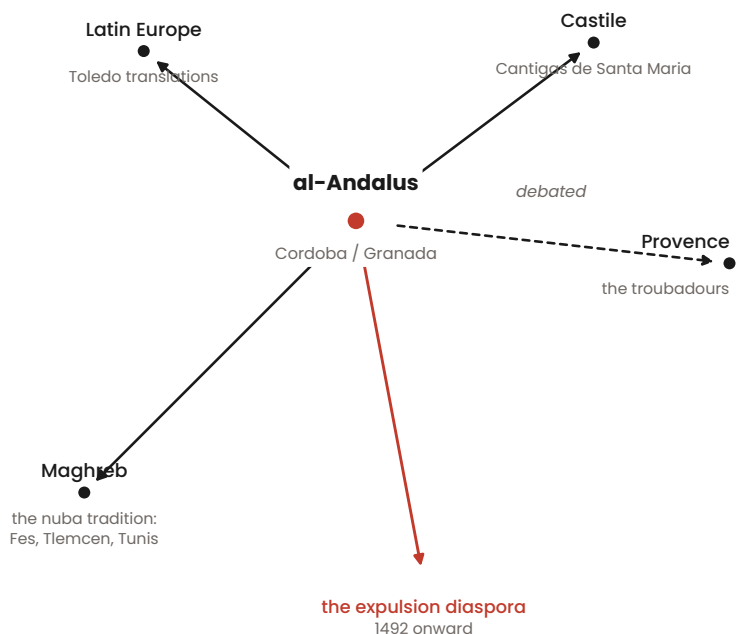
Ziryab died around 857, under the emir Muhammad I, having outlived his great patron by five years. His school passed to his children and his stu-

dents; his adopted homeland passed through every political weather. The caliphate proclaimed in 929 collapsed after 1009 into the taifa kingdoms, and fragmentation, disastrous for politics, was excellent for music: every petty king wanted a court that sounded like Cordoba's, so the trained musicians dispersed and multiplied.

The most remarkable figure of that dispersal was Ibn Bajja, known to Latin readers as Avempace: philosopher, vizier at Zaragoza, and by reputation the finest musician of his age, who died in Fez in 1139. A thirteenth century account by the encyclopedist al-Tifashi credits him with joining "the songs of the Christians with the songs of the East" into a style the peninsula preferred ever after. The report is late and secondhand, and it is precious anyway: it shows that Andalusis themselves heard their music as a fusion, and were proud of it. Under the Almoravids and Almohads, dynasties of austere reputation, patronage flickered without dying; under the Nasrids of Granada the tradition kept its last Iberian court until 1492.

Then the diaspora proper. Granada fell in January of that year; the expulsion of the Jews followed within months, and the expulsions of the Moriscos came between 1609 and 1614. The refugees carried the repertoire across the strait, to Fez and Tetouan, Tlemcen and Algiers and Tunis, where it took root as the classical music of North African cities and acquired new names: *al-Ala* in Morocco; *san'a* in Algiers, *gharnati* in Tlemcen, *ma'luf* in Constantine and in Tunisia, where thirteen *nubat* survive and the Rachidia Institute, founded in Tunis in 1934, fixed the modern canon. Sephardi Jewish communities carried a parallel repertoire of romances and paraliturgical song through the same cities and beyond. Each tradition calls itself Andalusí; each is, strictly, an heirloom reconstructed from memory, first written down whole in the eighteenth century. Continuous note for note descent from Iberia cannot be proven. What can be heard is a family resemblance that five centuries of exile has not erased, and a community's decision, renewed nightly, about who it is.

WHAT FLOWED OUT OF AL-ANDALUS



Where the music of al-Andalus went: south into the nuba orchestras of the Maghreb, across the sea with Sephardi song, north into the Cantigas and the troubadour question (that line drawn broken, still debated), and into Latin theory through Toledo.

The figure maps the whole inheritance, and reading it you can see the chapter's claim laid out as geography. The emir's ride to the gate may be embroidery; the five hundred dream songs are certainly legend; the asparagus is beside the point. What is real is the machinery: a school that made musicians, a suite that made evenings, a poetic form that made languages share a stage, all of it durable enough to survive the fall of every state that ever paid for it. The truest relic of Ziryab is not a melody. It is a syllabus, and somewhere in Fez tonight, an orchestra is still teaching it.

LISTENING NOTES

🎵 Orchestre al-Brihi de Fes, dir. Haj Abdelkrim Rais, Nuba Gharibat al-

Husayn

The great Fez orchestra inside the al-Ala canon; listen across a full mizan for the engineered acceleration, and for the lift when the rhythm finally dances.

♪ Ensemble de la Rachidia, Tunisian ma'luf recordings

The Tunis branch of the diaspora, standardized by the Rachidia after 1934; the same suite logic as Fez wearing a different accent.

♪ Munir Bashir, L'Art du Ud

A Baghdad master alone with the instrument this chapter lives on; hear how an unfretted neck lets every interval be a choice.

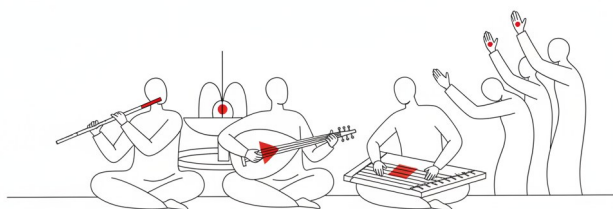
♪ Hesperion XX, dir. Jordi Savall, Cantigas de Santa Maria

Alfonso X's songbook reconstructed with lutes and frame drums; a modern argument, made in sound, about how mixed the thirteenth century really was.

♪ Montserrat Figueras and Hesperion XXI, Diaspora Sefardi

The Sephardi thread of the expulsion, sung with devastating intimacy; the other music that left Iberia in 1492 and refused to die.





THE ISLAMIC GOLDEN AGE — CHAPTER 7

Modes of Emotion: Maqam and Dastgah

Two melodies can use exactly the same notes and mean entirely different things. From Cairo to Tehran, musicians navigate by modes that are not scales but places: each with its own weather, its own gravity, its own grief.

9TH CENTURY TO THE PRESENT

· CAIRO, ALEPPO, ISTANBUL, TEHRAN

مقام

maqam · place, station

On the first Thursday of the month, Cairo empties into its radios. It is a winter night in 1964, and in a packed theater near the Nile an orchestra of violins, oud, qanun, and riqq is tuning for the premiere of a new song. When Umm Kulthum walks out, a woman in her sixties with a chiffon scarf folded in one hand, the applause runs longer than some songs. Then the strings unspool a long overture, she begins “Enta Omri,” you are my life,

and for the next hour nothing else happens in Egypt.

Twenty minutes in, she reaches a line she has already sung, and something in the way she leans on a single note breaks the room open. Men in dinner jackets are on their feet, shouting. She waits, lets the orchestra circle back, and sings the line again, and this time the note blooms differently, held a fraction longer, shaded a degree darker. The shouting doubles. She will deliver that line six times before she lets it go, no two alike, and nobody present will call it repetition.

A newcomer might reasonably ask what is being repeated, and why repetition electrifies instead of boring. The answer is that no one in that theater is listening for what happens next. They are listening for where they are. The song lives in a **maqam**, and maqam, in Arabic, means a place: a station, a position, a spot that someone occupies. When the theorists of the medieval Islamic world attached that word to musical modes, they made a claim that is easy to underestimate. A piece of music does not merely use certain notes. It takes up residence somewhere. The performer enters that place, the listeners file in behind her, and the emotional character of the music is a property of the place itself: its weather, its gravity, the views it allows.

This chapter is about that idea and its two greatest elaborations: the Arab maqam system, which runs from North Africa through Egypt and the Levant into Iraq, and the Persian dastgah system centered on Iran, with the Ottoman makam world of Chapter 12 standing as their third sibling. What all three share is the conviction Umm Kulthum's audience knew in its bones. A maqam is a personality, not just a pitch collection.

— A Place, Not a Scale

A Western major scale is a portable pattern. C major and D major are the same object at different heights, and the whole apparatus of European harmony depends on that portability: any tune can be lifted and set down a step higher without changing what it is. A maqam is built for inhabitation rather than transport. Each one has a home note, a hierarchy of degrees that behave differently (some are floors you rest on, some are doorways you pass through), characteristic opening gestures, favorite cadences, and a repertoire of phrases that belong to it the way certain streets belong to a city.

Transposition exists, but it is constrained, and it changes the mode's name and identity rather than merely its height. Bayati is at home on the note the tradition calls dukah, our D. Move it up to G and musicians call the result Bayati Nawa, a recognized variant with its own slightly different manners. Other maqamat rarely leave their home note at all, partly because the instruments themselves, with their sympathetic tunings and open strings, flatter certain pitches. Where the Western scale is a formula, indifferent to location, the maqam is an address.

The system carries a long memory. Al-Farabi, whom Chapter 5 met in tenth century Baghdad, measured the frets of working lutenists and wrote down what practice actually did. Three centuries later Safi al-Din al-Urmawi organized the modal universe into twelve principal modes, the shudud, and several of his names, Rast, Nawa, Husayni, Hijazi, are still on the map today; his Systematist school, carried forward by Abd al-Qadir Maraghi, dominated theory from Cairo to Samarkand for four hundred years. By the generations after Maraghi, the word maqam had settled over the whole family. At the far western end of this world, the Andalusí tradition of Chapter 6 was arranging entire evening-length suites, the nawba, inside a single mode. The maqam idea is one conversation, a thousand years long, held across an entire hemisphere.

And within that conversation, one principle never wavered: two maqamat can share every interval and remain different modes, because they begin differently, weight different degrees, and travel by different roads. The intervals are necessary but not sufficient. What makes them sufficient is the subject of the next two sections.

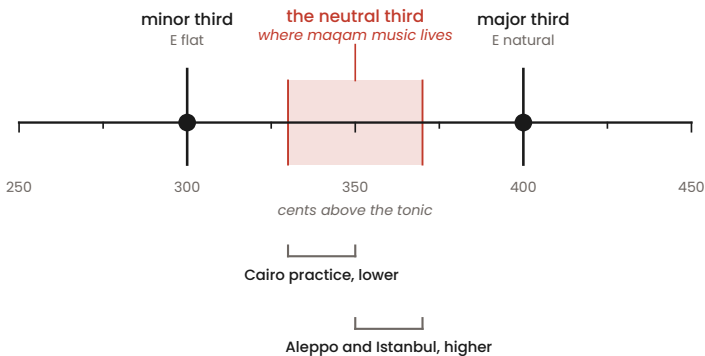
— The Notes Between the Notes

A piano's octave is divided into twelve equal semitones, every crack sealed. Maqam melody keeps notes the piano cannot play. The most famous is the neutral third: between the minor third and the major third sits a third that is neither, written in modern Arab notation with a slashed half-flat sign, sounding in the region halfway between the two. There are neutral seconds, sixths, and sevenths as well. Westerners sometimes describe these as quarter tones, and the term is useful shorthand, but what the tradition actually maintains is a set of pitches that refuse the twelve-tone grid altogether.

There is nothing new or approximate about them. Al-Farabi documented a fret for the neutral third on the Baghdad oud a thousand years ago: the wusta Zalzal, “Zalzal’s middle finger,” named for an eighth century lutenist of the Abbasid court. It is tempting to write that European music abandoned such intervals; the truth is that European art music never used them. What Europe eventually standardized was temperament, the sealing of its own twelve cracks. The maqam world simply declined to seal the space between the notes, and that was a choice about expression, not a stage of development.

In the nineteenth century the system acquired its modern bookkeeping. Mikhail Mishaqa, a Lebanese-Syrian polymath (physician, historian, and eventually the first Protestant convert in Damascus), laid out in his treatise on the musical art a division of the octave into twenty-four equal quarter tones, giving every maqam note an address on a single grid. It was an elegant convenience, and Mishaqa himself understood something his successors sometimes forgot: performers do not play equal quarter tones. The neutral third is a zone, not a point. Aleppo tunes it perceptibly higher than Cairo; a singer will shade it differently in the same song’s third hour than in its first. As the figure shows, the space between minor and major third is not one pitch but a small country of them, with regional accents.

WHERE THE NEUTRAL THIRD LIVES



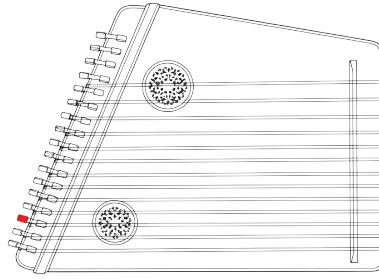
Where the neutral third lives: a zoomed strip of the space between the minor and major third, showing the bands where Cairo, Aleppo, and Istanbul each keep their own shade of E half-flat.

The grid met the zone head-on in 1932, when King Fuad I convened the Cairo Congress of Arab Music, from 14 March to 3 April, and the modern world's musicologists came to sit with the Arab world's masters. Bela Bartok and Paul Hindemith attended; commissions argued over scale, modes, rhythms, and instruments; and the scale commission adopted the twenty-four-tone framework as a reference amid open dispute, with some delegates insisting that only measurement of living performance, not any grid, could describe the music. Meanwhile the gramophone engineers worked in the background, recording the assembled singers and ensembles; His Master's Voice issued 162 discs of the proceedings. The grid was a compromise. The discs were the treasure, and Chapter 18 returns to that gathering from the other side of the horn.

Why does any of this matter beyond theory? Because these in-between notes are not decoration. They carry the mode's feeling. When a singer performing Bayati leans into its neutral second and lets it bend, the effect is a particular species of yearning that no tempered instrument can counterfeit. A listener raised on equal temperament may hear such a note, at first, as out of tune. It is the reference system that is off. The pitch is exactly where it is supposed to be. The tuning is the emotion.

*The pitch is exactly where it is supposed to be.
The tuning is the emotion.*

The instrumentarium is built for this in-between world: the oud's fretless neck, the singer's throat, and the qanun, whose small metal levers, the mandal, click the pitch of each course up or down by fractions of a semitone between phrases, a mechanical map of maqam space laid flat across the player's lap.



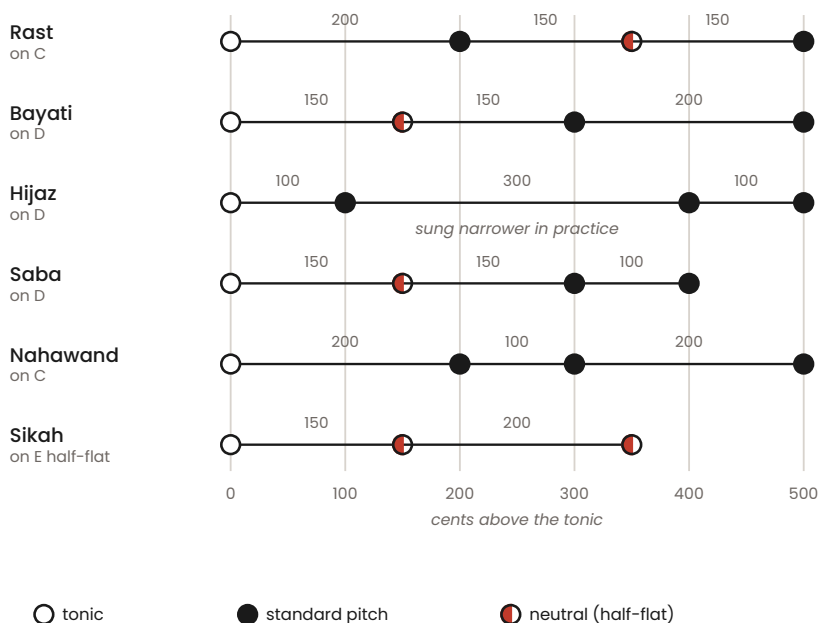
The qanun, a plucked zither of dozens of triple-strung courses; the rows of small mandal levers at the player's left hand retune each course by fractions of a semitone, so the instrument can move house from one maqam to another mid-performance.

— Building Blocks: the Ajnas

Ask a Cairo teacher how a maqam is put together and the answer will not be a scale. It will be a **jins** (plural ajnas), the analytic unit of the whole system: a compact melodic cell of three, four, or five notes with a strong, immediately recognizable identity. The word is a borrowing of the Greek *genos*, a relic of Baghdad's translation age, but the concept as musicians use it is thoroughly practical. The jins is where the character lives. Jins rast sounds poised and upright; jins bayati aches; jins hijaz tightens the air. Melody in this tradition is not a walk up and down a ladder but a circling within one jins until its possibilities are spent, then a step into the next.

A maqam, in this analysis, is a root jins planted on the tonic plus one or more upper ajnas joined to it at the *ghammaz*, the pivot degree, usually the fourth or fifth, where the melody re-roots itself. Maqam Rast is jins rast on C carrying a second jins rast on G. Maqam Bayati is jins bayati on D with jins nahawand above it. Modulation, the glory of a mature performance, is the art of exchanging one upper jins for another and wandering into a neighboring maqam without breaking stride, then finding the road home. The figure lays six of these lower ajnas side by side, measured in quarter-tone units, and a few minutes with it will explain more than a page of prose. Scott Marcus, the American ethnomusicologist who spent decades studying and teaching in Cairo, describes performers navigating by ajnas the way drivers navigate by neighborhoods rather than by a street grid: nobody thinks about the whole city at once.

SIX MAQAMAT, LOWER JINS COMPARED



The building blocks: lower ajnas of six principal maqamat in quarter-tone units. Note Bayati's signature: a neutral second degree above the tonic, then an ordinary minor third.

One more concept completes the toolkit. Every maqam has a **sayr**, literally a "journey": the prescribed itinerary of a performance in that mode. The sayr says where to begin (not always the tonic), which degrees are resting points, which upper jins to visit first, how the ascent to the high register should be staged, and how the return is earned. Two maqamat can share an identical scale and be distinguished purely by sayr, which is why the tradition insists that a mode is a path and not a pitch set. The sayr is not written anywhere. It is learned the way a city is learned, by walking it with someone who knows the way.

— Six Journeys

With ajnas and sayr in hand, walk six of the great maqamat, six places on the map.

Rast is the elder. Its name means “straight” or “true” in Persian, and its sound is the system’s image of uprightness: built on C with a neutral third and neutral seventh, poised exactly between major brightness and minor shadow. The effect is balance, dignity, clear morning light. Rast is the first maqam a student learns and the one many teachers call the mother of the system; it carries formal poetry, ceremonial song, and a great deal of Quranic recitation.

Bayati is the beloved. It sits on D, and its signature is one step above the tonic: a neutral second, E half-flat, a soft leaning tone that gives the mode its tender gravity. Above that, the third degree is a plain minor third, nothing unusual at all; Bayati’s magic is concentrated in that second step. It is the maqam of the people across Egypt and the Levant, the home of folk song, love poetry, and religious chant alike. A Bayati performance strives upward toward the fifth and sixth degrees with a feeling of reaching, then settles back to the tonic with something like acceptance. This arc, repeated and varied across the length of a performance, is the emotional content of the music.

Hijaz is the dramatist. On paper it runs D, E-flat, F-sharp, G: an augmented second between its second and third degrees, three full semitones, the interval that most loudly announces the maqam world to outsiders. On paper. In practice the gap is characteristically compressed, the second creeping upward and the third easing down, so that the sung interval is warmer and narrower than the notation; Marcus documented Cairo teachers correcting students who played the printed version. Named for the western Arabian region that holds Mecca and Medina, Hijaz is everywhere in the call to prayer, and its character is restlessness: phrases circle the tonic without consenting to land on it.

Saba is the mourner. It shares Bayati’s first steps, D and a neutral E half-flat, but then folds downward through F to G-flat, a lowered fourth that aims the whole mode toward the earth. Saba never quite closes its own circle: the octave above the tonic arrives flattened, so the mode cannot end where it began, and performances close instead on a suspended, unresolved grief. It is the maqam of dirges and elegies, and Sufi tradition hears in it the soul’s sorrow at separation from its source.

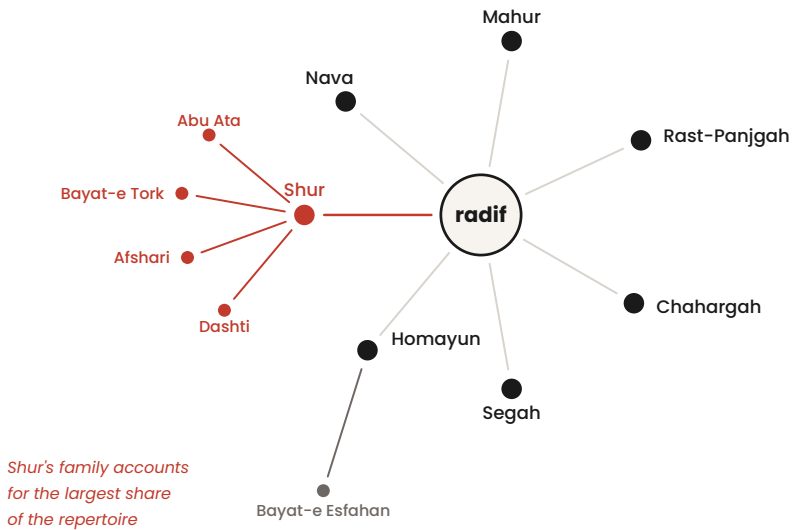
Nahawand is the bridge. Built on C with a structure close to the European natural minor, and named for a town in western Iran (the name itself a record of how far this system traveled), it is the easiest door into the tradition and the workhorse of twentieth century Egyptian song and film. But a musician who knows only the minor scale and attempts Nahawand will produce something correct and lifeless, the words of a language without its idioms. The phrases, cadences, and hierarchies are Nahawand's own.

Sikah is the strangest and, to many ears, the most luminous. It begins on a note the piano does not possess: the E half-flat itself, promoted to tonic. Its name is Persian, *seh gah*, "third position," because its home is the third degree of Rast. The whole Sikah family, including the ornate Huzam, is built on that borrowed, floating foundation, and the effect is weightlessness, celebration at a slight angle to the ground. It saturates festive religious song, and in Turkey, as *Segah*, it opens some of the great Mevlevi compositions that Chapter 12 will hear entire.

— The Persian Answer: Dastgah and Radif

Persia answers the *maqam* with a different architecture built on the same conviction. Classical Persian music organizes its modal universe into the **dastgah**, a word that means something like "system" or "apparatus," and the count is fixed by tradition: seven dastgah, *Shur*, *Mahur*, *Homayun*, *Segah*, *Chahargah*, *Nava*, and *Rast-Panjgah*, plus five satellite systems called *avaz*, each attached to a parent. *Abu Ata*, *Bayat-e Tork*, *Afshari*, and *Dashti* all orbit *Shur*; *Bayat-e Esfahan* belongs to *Homayun*. The wheel in the figure shows the family whole: twelve named worlds, five of them moons.

THE RADIF: SEVEN DASTGAH AND THEIR OFFSHOOTS



The Persian modal universe: seven dastgah with their five avaz drawn as satellites. Abu Ata, Bayat-e Tork, Afshari, and Dashti orbit Shur; Bayat-e Esfahan attaches to Homa-yun.

A dastgah is a larger organism than a single maqam: less a place than a province, crossed by a fixed sequence of melodic models called gusheh. The complete ordered corpus of gusheh across all twelve systems is the **radif**, “the row,” and it is the canon of Persian classical music. Its codifiers are known by name. Aqa Ali Akbar Farahani, tar master at the court of Naser al-Din Shah in the mid nineteenth century, carried the repertoire; his sons Mirza Abdollah and Mirza Hossein-Qoli fixed it in teachable form; and the Radif of Mirza Abdollah, some two hundred fifty gusheh, remains the reference corpus in Iranian conservatories today, inscribed by UNESCO in 2009 as intangible heritage. Chapter 8 returns to the radif as the greatest of the arts of memory. Here, what matters is the map it draws.

At the map’s center is Shur. Four of the five avaz hang from it, and it occupies the position Rast holds for the Arabs: the mode against which the others are measured. Its second degree is lowered by a koron, the Persian

microtonal flat, roughly a quarter tone. And it contains one of the tradition's most distinctive features: a degree that will not sit still. The unstable note of Shur is its fifth, natural in some gusheh and koron-flattened in others, shifting with register and direction of movement. Hormoz Farhat, whose study *The Dastgah Concept in Persian Music* remains the standard analysis, mapped that instability precisely and warned against forcing Persian intervals onto any equal-tempered grid, quarter tones included. The affect of Shur is named *hozn*: sorrow, but sorrow of a cultivated kind, grief with sweetness folded into it, the shade of feeling Persian aesthetics prizes above all others.

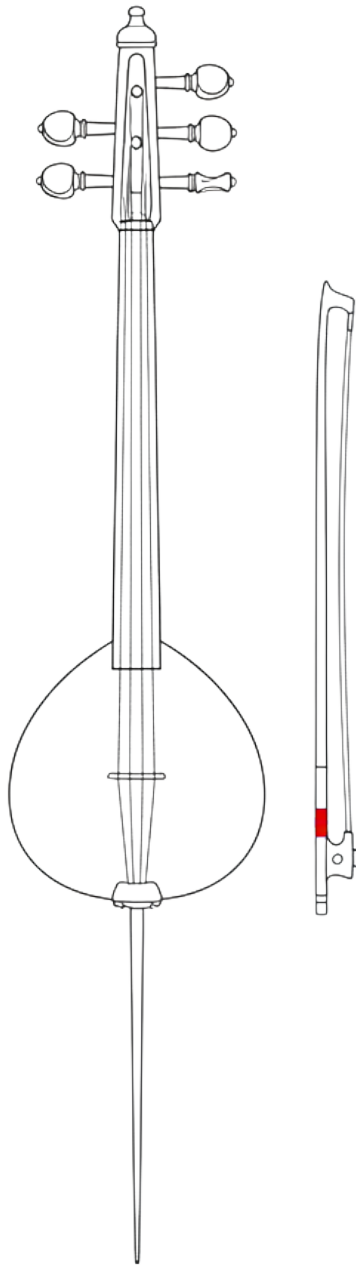
The other provinces have their own weather. Hodayun carries a deeper, more ceremonial grief; its step from second to third degree looks on paper like the augmented second of Hijaz, but in Persian practice it is narrower, the interval Farhat called a "plus-second," larger than a whole tone and smaller than the printed three semitones. Chahargah blazes: sharp intervals, wide gestures, the dastgah of heroism and fierce joy. Mahur, cousin to the European major, is open daylight, the vehicle of much celebratory song. Segah, sharing ancestry with the Arab Sikah, is tenderness at an angle.

A Persian performance is a journey with a known shape. It opens in the daramad, the low-lying home region of the dastgah; climbs gusheh by gusheh into higher tessitura toward the owj, the summit; and after each excursion returns home by a cadential descent called *forud*. Crowning the vocal art is **tahrir**, the cascading ornament in which the voice breaks rapidly between registers with a yodel-like glottal flip, a controlled crack repeated in glittering chains. It is the sound Persian listeners wait for, the proof that a singer has the tradition in the body and can spend it freely. A dastgah, in other words, is not a scale a musician selects. It is a country a musician crosses, by roads everyone knows, with detours no one can predict.

*A dastgah is not a scale a musician selects. It is
a country a musician crosses.*

Around the voice gathers the classical ensemble: tar and setar, the plucked lutes; the hammered santur; the ney; the tombak drum; and the

kamancheh, the upright spike fiddle whose slightly nasal, speaking tone shadows a singer more closely than any other instrument.



The kamancheh, Persia's spike fiddle, rests on a pin and swivels to meet the bow. Listen for the way it answers a singer's tahrir, matching the voice's glottal glitter bow-stroke for pulse.

— The Voice of God in Bayati

Five times a day, the maqam system performs its most public work. The *adhan*, the call to prayer, is not officially music; the jurists' settled answer is that it is melodic recitation, a category kept carefully separate from the contested legal status of musical entertainment. But the muezzin's training is a musician's training. In Egypt the call is most often delivered in Bayati or Rast, and the celebrated muezzins and reciters of twentieth century Cairo, none more than Sheikh Ali Mahmoud, drew crowds who came to the mosque early for the same reason they queued for concert tickets: to hear a master work a mode.

Quranic recitation, *tajwid*, is governed by rules of pronunciation and pacing, and within those rules the reciter chooses *maqamat* to fit the text: sterner, more austere modes for verses of warning, consoling ones for verses of mercy. The choice is an act of interpretation, and it rests on the same principle that governs *raga* in Indian devotional practice: the mode is not a neutral container but an expressive environment. A verse placed in *Saba* does not mean quite what it means in *Rast*, and every trained reciter knows it.

The Sufi orders carried listening itself into worship. Their ceremony of *sama*, "audition," which Chapter 5 heard al-Ghazali cautiously defend, reaches its most elaborate form among the Mevlevi, the order descended from the poet Rumi, whose whirling ceremony is a single sustained modal argument. Each *sema* is built on one *ayin*: a single multi-movement composition in one named *makam*, written as a unity by one composer, such as Dede Efendi's *Ferahfeza ayin* of 1839. The *ney* opens alone, the composition unfolds movement by movement, and the mode holds the entire rite together like a keel. Chapter 12 stands inside that ceremony from the first breath to the last.

— The Masters of Tarab

What is the whole apparatus for? The Arab tradition has a one-word answer: *tarab*, the state of ecstatic enchantment that music exists to produce, the current that ran through the theater in 1964. A.J. Racy, the Lebanese-American scholar and performer whose *Making Music in the Arab World* remains the definitive account, describes *tarab* as a loop rather than a transmission: the audience's cries reshape the singer's next phrase, which raises the audience higher, which frees the singer further. The tradition even

names the performer's precondition, *saltana*, the state of being so saturated in a *maqam* that its phrases arrive unbidden.

CONCEPT

Tarab

Tarab has no single English equivalent. The word covers the repertoire, the ecstatic state it produces, and the relationship that produces it: a live circuit between performer and audience in which listening is not reception but participation.

The circuit runs on response. A perfectly placed neutral third draws cries of "Allah!" and "ya salam"; the singer hears, and the next phrase answers the room. Racy's musicians speak of *saltana*, modal saturation, the point at which the *maqam* thinks through the performer. Without a responding audience, they insist, *saltana* starves.

This is why Umm Kulthum repeated her lines. Each return altered one variable, a vowel darkened, an ornament delayed, a note held one heartbeat longer, and each alteration asked the room whether it wanted to go higher. A song could stretch past an hour this way. The repetition was not indulgence. It was engineering, tuned to the only instrument that mattered: the listeners.

The masters of the twentieth century each held a corner of this world. Umm Kulthum, born around 1898 in a Delta village, the daughter of a village imam who first dressed her as a boy so she could sing religious praise in public, became the voice of the Arab world for fifty years; her monthly broadcast concerts stopped traffic from Casablanca to Baghdad. In Iraq, Munir Bashir made the *taqsim*, the solo unmetered improvisation that walks a *maqam*'s *sayr* in real time, into high concert art; his recitals were studies in patience, silence laid against single sustained tones, the oud thinking aloud. In Aleppo, Sabah Fakhri kept the all-night *sahra* tradition alive, singing *muwashshahat* and the city's beloved *qudud* with a stamina that became legend, pacing an audience's ecstasy across six hours the way a caravan master paces a journey.

And in Iran, Mohammad Reza Shajarian carried the *radif*'s entire vocal art in his throat: the supreme master of *avaz* in his century, his *tahrir* compared by Persian writers to light breaking on water. When he died in 2020, crowds outside the Tehran hospital sang his songs back to the building through the night.

These artists worked in different languages, under different systems, for

different audiences. What they shared was the old claim hiding inside the word *maqam*: that a mode is a place, and that a master is someone who has walked it so long and so attentively that they can take a few thousand strangers there in an evening and bring them back changed. This is what the medieval theorists meant when they said that music could move the soul. They were not speaking metaphorically.

LISTENING NOTES

♪ Umm Kulthum, “Enta Omri”

The 1964 summit with composer Mohammed Abdel Wahab. Listen for the repeated lines and what changes in each return, and for the roar that answers every change: tarab, captured live.

♪ Munir Bashir, solo oud taqasim

The Iraqi master’s unmetered improvisations: a maqam’s sayr walked step by step, with silences that carry as much weight as the notes.

♪ Sabah Fakhri, qudud halabiya (live)

Aleppo’s great tenor in the songs of his city; hear how he holds a crowd through hours by rationing ecstasy, one modulation at a time.

♪ Mohammad Reza Shajarian and Parviz Meshkatian, Bidad

Dastgah Homayun as grief given architecture; wait for the tahrir passages, chains of glottal sparks no notation has ever caught.

♪ Kayhan Kalhor and Erdal Erzincan, The Wind

Kamancheh meets Turkish baglama in a single flowing improvisation: the Persian and Anatolian modal worlds conversing in real time.





THE ISLAMIC GOLDEN AGE — CHAPTER 8

Remembering and Writing Sound: Oral Tradition and Notation

For most of history, the East wrote music down only reluctantly, and for good reason: the page can hold the notes, but not the way between them. This is the story of what writing captures and what only a teacher can give.

800 BCE TO 1950 CE

· EVERYWHERE INK MET MELODY

सरगम

sargam · the syllables of
melody

In a wooden house above the Bosphorus, sometime in the seventeenth century, a boy sits on the floor facing his teacher, knees almost touching. No paper lies between them, because paper would be beside the point. The teacher sings a short phrase, five or six notes with a particular curl at the end, and waits. The boy sings it back. It is not right. The teacher sings it

again, unchanged, and the boy answers again, and this continues until the curl at the end sits exactly where it belongs and nowhere else, and only then does the phrase advance. A single composition, a *pesrev* that a court ensemble will one day play in a few minutes, can take months to hand across this way. The method has a name, **mesk**, and by it the whole art music of the Ottoman world, thousands of pieces, was carried from one body to the next for centuries, with almost none of it written down.

Somewhere in the same city, in the same century, a different man is doing what the tradition considered beside the point and very nearly improper. He has a European education and a captive's history, and he sits alone with a pen, listening to that same repertoire and setting it into staff notation on the page, written right to left, so that the lines of music run the way the lines of Ottoman script do. He is trying to catch what *mesk* hands over from mouth to ear. He half succeeds. The half he cannot catch is the subject of this chapter.

For most of the history of the music in this book, writing was the exception and memory was the rule. This was not backwardness, and it was not illiteracy in cultures that produced some of the most bookish civilizations on earth. It was a considered position about what music is. The claim of this chapter is that these traditions declined to make the page the master of the music, not because they lacked the means, but because they had concluded that a notation preserves the least important part of a performance, and that the rest, the way between the notes, lives only in a trained body and passes only from one body to another.

— The Memory Palaces

Start with the scale of the thing being remembered. In Chapter 1 we met the guardians of the *Rigveda*, who preserved a text of more than a thousand hymns across three thousand years with a fidelity that modern scholarship struggles to credit, and who did it without writing. Their tool was recitation engineered against error. Beyond the plain word-by-word chant lay the woven forms, and the densest of them, *ghana patha*, “bell recitation,” takes each pair of words and turns it over in a fixed permutation, forward, backward, forward again, before moving on. A slip cannot hide inside a pattern that revisits every syllable from three directions. The result is a checksum built of muscle memory, and the masters who command it still carry the title *Ghanapathi*. What looks from outside like piety is also, seen

plainly, a data-integrity protocol older than the alphabet that might have replaced it.

Music built the same kind of structures. Long before Eastern cultures developed ways to write sound down, they had developed something harder and arguably more sophisticated: systems for keeping it alive. A Persian court musician might carry two hundred melodic models in his memory and move among them with the ease of a man walking through his own house in the dark. An Indian vocalist held hundreds of ragas, each a web of rules and habits, none of them on paper. These were memory palaces made of throat and hand, and the people who built them were not waiting for a better technology. They had the technology. It was the human body, trained past the point where forgetting is possible.

There was a shadow side to a music kept in bodies. When the only copy of a tradition is a trained person, deciding who may become that person is an act of power, and every one of these cultures guarded the door. Chapter 1 noted whom the Vedic schools shut out; the court musics of Persia, India, and the Ottoman lands passed largely along lines of family, guild, caste, and gender, taught to sons and chosen apprentices and withheld from nearly everyone else. A written score can be stolen, copied, or read by an outsider who was never meant to have it. A tradition lodged in memory can be kept from you simply by refusing to let you near the teacher. Much of what an oral music forgets, it forgets on purpose.

— What a Notation Believes

Every notation is an argument about what music fundamentally is. If music is a set of pitches and durations that can be captured in a symbolic code, then writing it down is a reasonable solution to the problem of preservation, and the better the code, the better the solution. But if music is closer to a way of inhabiting sound, a practice that includes not only which notes but how they are colored, bent, breathed, and set against silence, then notation solves the easy half of the problem and leaves the hard half exactly where it was. Most of the traditions in this book took the second view, and it shaped everything about how they wrote, and did not write, their music.

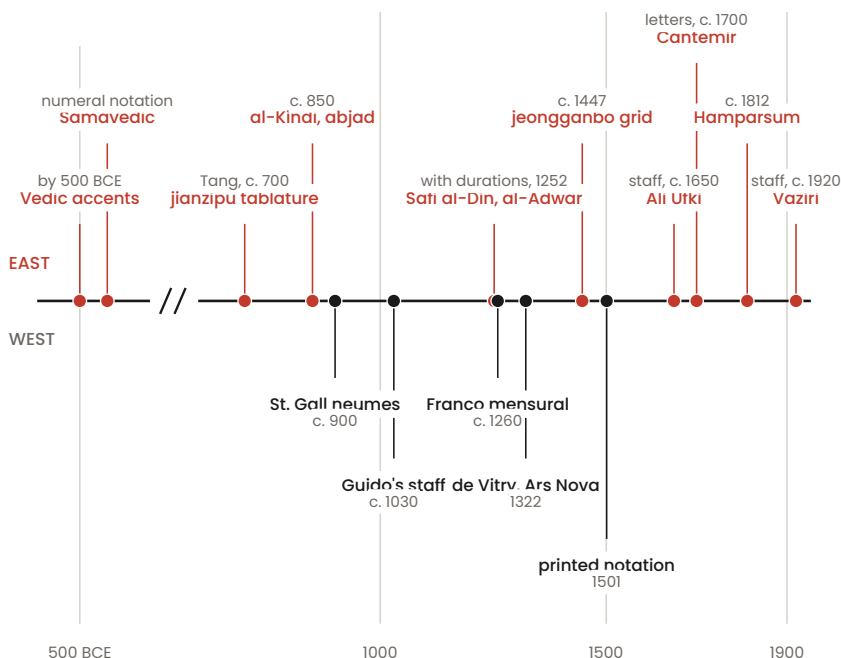
The contrast with Europe is real but easily overstated, because European notation did not begin precise. The neumes of the ninth and tenth century, the small marks hovering above the words in manuscripts like the *Codex Sangallensis* at St. Gall, do not fix exact pitches at all. They sketch the shape

of a melodic gesture: rise here, fall there, this many notes on that syllable, a flowing motion or a clipped one. A monk reading them had to know the chant already. The notation reminded him. It did not teach him.

The notation reminded him. It did not teach him.

What happened next in Europe was a slow drift toward prescription, the staff and its descendants growing precise enough that a musician who had never heard a piece could raise it from the page. The usual story says no Eastern system took that path. The truth is more interesting. Several Eastern systems grew remarkably precise, some encoding rhythm centuries before European staff notation stabilized. What none of them did was let the written page displace the living master as the final authority on what the music meant. The notations multiplied, and the teacher remained in charge. As the figure shows, the timeline of written music runs on two tracks at once, the Eastern and the European braiding around the same problem for well over two thousand years, neither one simply ahead of the other.

NOTATING SOUND: EAST AND WEST, 800 BCE–1950 CE



A parallel history of written music from about 800 BCE to 1950, the Eastern systems on one track and the European on the other, from Vedic accent marks and abjad letters through neumes, jianzipu, jeongganbo, Ali Ufki and Cantemir, down to the phonograph.

— Letters for Pitches: the Abjad Systems

The oldest written music of the Islamic world used its alphabet twice over. In the **abjad** system, the Arabic letters carry numerical values, and by extension they can name the pitches of a scale, each note tagged with the letter that marks its place. Al-Kindi, the ninth century philosopher of Baghdad whom Chapter 9 will meet as the first Arabic music theorist, applied exactly this alphabetic labeling to the frets of the oud, turning the instrument's neck into a diagram and the diagram into a notation. A scholar

reading abjad sees the pitch content of a melody the way a chemist reads a molecular formula: the elements are named, in order, on the page.

It was long said that such notation could hold pitch but said nothing about time. That is wrong, and the correction matters, because it dislodges a persistent invention. There was never a “khafif system” of musical notation. Khafif, “light,” is the name of a rhythmic mode, one member of the catalogue of *iqa’at*, the metric cycles, set against the “heavy” modes called *thaqil*. That vocabulary of rhythm descends from Arabic poetry, whose meters the eighth century scholar al-Khalil ibn Ahmad had already sorted into a set of rotating circles, the founding diagram of Arabic prosody. Music borrowed the circles. It did not turn “khafif” into a way of writing. And when a real notation of rhythm did arrive, it came bundled with pitch. Safi al-Din al-Urmawi, the great systematizer of Chapter 5, wrote his *Kitab al-Adwar*, the *Book of Cycles*, around 1252, and in it he notated melodies with abjad letters for pitch and numerals above them for duration. Complete pieces survive in his system, the earliest fully written compositions of the region, and the musicologist Owen Wright has raised several of them back into sound. The abjad tradition encoded rhythm. It simply did so quietly, in the theory books, while performers went on learning by ear.

Three centuries later the Ottoman world produced the richest chapter in this story, and its first great scribe was the man from this chapter’s opening. Ali Ufki, born Wojciech Bobowski in Poland around 1610, was captured as a young man, enslaved, brought to the Ottoman palace, and there trained as a musician and eventually as chief interpreter to the sultan. He alone could hear the Ottoman repertoire from inside its own transmission and also write in European staff, and in his *Mecmua-i Saz ü Söz*, compiled around the middle of the century, he set down hundreds of pieces, sacred and secular, court and street, in staff notation flowing right to left. A generation later Dimitrie Cantemir, a Moldavian prince held at the Ottoman court around 1700, devised a letter notation of his own and used it to preserve some three hundred and fifty instrumental works, the largest surviving body of early Ottoman instrumental music by far. And early in the nineteenth century the Armenian musician Hamparsum Limondjian built the notation that finally became standard, a compact system of symbols that carried Ottoman music through the century.

It is worth noticing who these scribes were. Ali Ufki came to the music from Poland and a European schooling; Cantemir arrived from Moldavia with a prince’s Latin education; even Hamparsum belonged to the Arme-

nian community that stood a little apart from the Muslim court establishment. It took a person with one foot already in another world of writing to look at a living oral art and conclude that it ought to be pinned to paper. The masters born wholly inside the tradition felt no such lack. They had *mesk*, and *mesk* had never once failed them.

Here is the case study the whole chapter turns on. The Ottomans had three good notations, two of them precise, and it changed almost nothing about how the music was actually learned. Students still sat knee to knee with a master and took the repertoire by *mesk*, phrase by corrected phrase, for years. Cantemir's collection was a library, not a classroom. The notations were where the music was stored and studied. They were never where it was born, and no one confused the two.

— Grids, Characters, and Clouds: East Asia Writes Sound

East Asia wrote music down more, and more variously, than anywhere else on earth, and it invented at least three fundamentally different shapes for the task: a grid, a character, and a cloud.

The character came from China. Its solfege, *gongche*, names pitches with a set of written syllables, and its most remarkable script belongs to the *guqin*, the scholar's zither of Chapter 2. Early *guqin* notation, *wenzipu*, spelled out every move in longhand prose, a paragraph to produce a single tone. By the Tang dynasty this had been compressed into *jianzipu*, "reduced-character" tablature, in which each composite glyph is a tiny instruction packet, fusing which string, which finger, which hand, and which of the thirteen marked positions along the board into one built-up character. It is exquisitely precise about how to make the sound and almost silent about how long to hold it, a notation of action rather than of time. A player must still know the piece to give it rhythm. Chapters 2 and 11 follow the *guqin* and its handbooks; here the point is the shape of the idea, a script that draws the hand's path and trusts the ear for the rest.

The grid came from Korea. In the fifteenth century King Sejong, the same monarch who gave his people their alphabet, gave them a way to write the duration of a note as plainly as its name. His *jeongganbo* rules the page into squares, one square to a beat, so that a pitch filling two squares sounds twice as long as one, and an empty square is a measured silence.

Duration became visible as space. It was the first notation in East Asia to fix rhythm as exactly as pitch, and Korean musicians read it still.

CONCEPT

Jeongganbo: Sejong's Grid

Chinese notations could name a pitch but stayed vague about its length, and the ear had to supply the rhythm. Sejong's court, in the 1440s, solved that with a grid. Each cell of jeongganbo holds one beat. A pitch name written in a cell lasts one beat; carried down through two cells, it lasts two; an empty cell is silence you can count.

The scholar Robert Provine describes the reform behind it as one of the great acts of applied research anywhere, a fifteenth century government program that rebuilt a nation's music from the pitch standard up. Its notation was the most original product, the first mensural writing in the region, three centuries or so before comparable precision settled in Europe.

Chapter 15 stands inside the court that built it and hears the music it preserved. What matters here is only the breakthrough: in East Asia, at least, someone did make the page hold time, and did it early, and the music still did not leave the teacher's keeping.

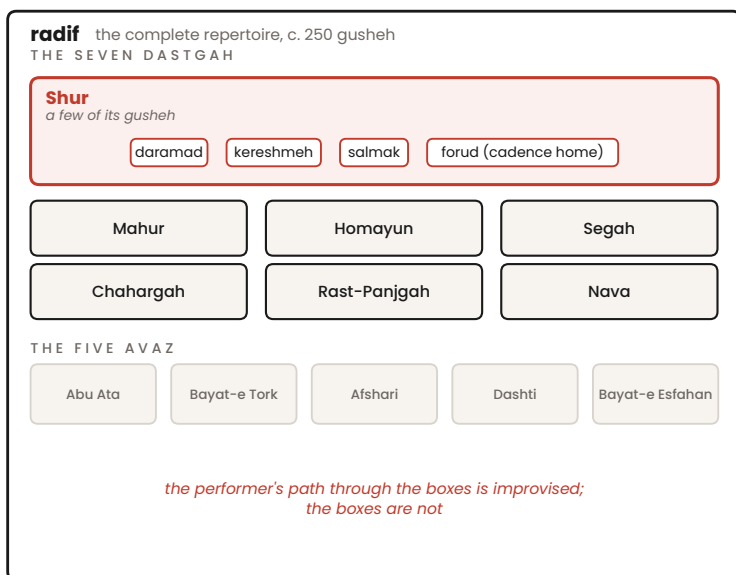
The cloud came from Tibet. Buddhist chant in the monastic traditions is written in **yang-yig**, a graphic notation in which long curving lines drawn above the syllables trace the actual path of the voice: the slow swell and fall of a held tone, the ornament that flowers at its peak, the growth and fading of loudness. It does not spell notes at all. It draws the gesture, a picture of the chant's shape hanging over the words like weather over a coastline, and a monk who knows the melody reads in it the exact contour of how to sing it. Between the guqin's packed characters, Sejong's counted grid, and Tibet's drawn clouds, East Asia had tried nearly every way a culture can imagine to fix sound on a surface. The bureaucracies of Chapter 3, which kept court music alive by treating musicians as civil servants, leaned on writing like this. And still, in every one of these cultures, the authority that decided what a phrase should sound like was a person, not a page.

— The Radif: a Library in a Body

The clearest picture of what a purely oral archive looks like comes from Persia. Classical Persian music is organized, as Chapter 7 described, into

seven dastgah and five satellite avaz, and the complete ordered corpus of melodic models across all of them is the radif, “the row.” The radif is not a book. It is not a set of scores. It is a body of musical knowledge that exists in its fullest form only in the memory of someone who has been taught it, phrase by phrase, in direct transmission from a master, over a course of study that typically runs from five to ten years. The teacher does not so much explain the radif as demonstrate it; the student does not so much analyze it as absorb it. Within each dastgah the radif holds a sequence of gusheh, some no more than a melodic kernel, some fully grown pieces, and together they map the whole expressive territory of the mode: where it opens, how it climbs toward its summit, how it comes home. The scholar Bruno Nettl, who spent years studying this transmission in Tehran, treated the radif as a case study in how a great improvised art can rest entirely on memorized models. The tree in the figure shows the shape of that library, dastgah branching into gusheh, a whole modal universe held in a single trained mind.

THE RADIF, BOX BY BOX



The radif as a nested library: the seven dastgah and five avaz branching into their ordered gusheh, the entire corpus a Persian master carries in memory and hands on by ear.

The radif was not written down in any systematic way until the late nineteenth and early twentieth centuries, when Iranian musicians, feeling the tradition pressed by modernization, moved to fix it. Two efforts stand out, and they were different in spirit. Ali-Naqi Vaziri, who had studied in Europe and come home determined to make Persian music legible on the Western staff, transcribed the radif and, to write its microtones at all, invented two new accidentals: the *koron*, which lowers a pitch by roughly a quarter tone, and the *sori*, which raises it. His signs entered common use and are printed in Iran to this day. His larger theory, a division of the octave into twenty four equal quarter tones, did not survive contact with the music, and Hormoz Farhat later showed that Persian intervals are flexible and refuse any such equal grid. Around the same time the statesman and musician Mehdi Qoli Hedayat set down his own notation of the repertoire. Their transcriptions were, and are, valuable. But musicians who had learned the radif by ear and then read these pages found them both too much and too little: too much, because they fixed as single correct versions what had always been a range of living variants, and too little, because no staff could hold the microtonal shadings, the specific ornaments, the breath. The notation was useful as a reference. It was not the radif.

— The Map Is Not the Territory

India named its notes early and used the names lightly. The seven syllables of **sargam**, Sa, Re, Ga, Ma, Pa, Dha, Ni, are contractions of the Sanskrit *svara* names, *shadja*, *rishabha*, *gandhara* and the rest, that the theory books have used for some two thousand years; as a written shorthand for melody the *sargam* appears in Matanga's *Brihaddeshi* more than a thousand years ago. A musician can write a composition's melodic outline in *sargam* and preserve something real. But every student of Hindustani or Carnatic music knows what the outline drops. The *sargam* is a map, not a territory. It does not show the *gamaka*, the oscillation that shakes and colors a note until the note is unrecognizable as a single pitch. It does not show the *meend*, the smooth glide that slides from one note to another through all the sound between them, which in many ragas is the melody, the named notes only its endpoints. It does not show the *kan swar*, the grace note that leans against a main note and bends its meaning. In a raga like *Darbari Kanada*, the slow heavy tremor on the flattened third is not decoration laid over the note; it is the note, and a *sargam* that writes a single steady Ga has written some-

thing the raga does not contain. These things can be described in words, roughly, and marked with special symbols, partially, and they are learned, finally, by years of imitation.

Persian singing hides its most telling proof in the same place. Tahrir is the rapid ornament in which the voice flips between registers with a catch in the throat, a controlled break something like a yodel, spun out in glittering chains. Theorists have described it in careful prose for centuries. None of the descriptions teach it, because tahrir is not information but coordination, a trained cooperation of breath and larynx that transfers only by hearing it, attempting it, being corrected, and attempting again, the way balance transfers to someone learning to ride a bicycle and never through a paragraph about balance. When Persian music entered the conservatory, the oral handing-on of tahrir had to continue inside the notated curriculum, because the score could tell you when to ornament. It could not tell you how.

*The score could tell you when to ornament. It
could not tell you how.*

Put one melody into four scripts, as the figure does, and the pattern is plain. Sargam names the pitches. Abjad names them too. The staff adds exact rhythm. Jianzipu adds the exact motion of the hand. Not one of them holds the meend, the gamaka, the tahrir, the timbre, the swell and give of a living line. Which is why every one of these traditions built the same institution around its music: the guru and shishya of India, the ustad and shagird of the Muslim courts, the master and apprentice of Ottoman mesk. Where the music lives in memory rather than on the page, knowledge must pass between present bodies. The student learns not a text but a practice, inseparable from the particular lineage of the particular teacher, and the teacher, not the paper, remains the standard against which everything is measured.

ONE PHRASE, FOUR NOTATIONS

sargam



abjad

letters name frets

staff



jianzipu

*each character bundles
string, position, finger*

One short melody written four ways, in Indian sargam, Arabic abjad, European staff, and Chinese jianzipu, with a column marking what each script captures (pitch, duration, fingering) and the long list every one of them leaves out.

— When the Phonograph Changed the Question

Then a machine arrived that did not care what music fundamentally was. The phonograph did not encode pitch, or duration, or fingering. It caught the sound itself, all of it, the meend and the gamaka and the tahrir, the timbre and the breath and the cries of the audience, without asking whether any of it could be written. For the first time the way between the notes could be preserved outside a living body. The question that had shaped

two thousand years of Eastern musical thought, how do you keep something that resists writing, suddenly had a blunt technical answer.

The answer showed up at the exact moment the old scholarship was straining hardest to write the music down. When the Cairo Congress of Chapter 7 gathered the Arab world's masters in 1932, its commissions argued for weeks over which grid best fit the maqam, while His Master's Voice engineers, working in the next room, pressed the performances themselves onto 162 discs. The delegates fought over the map. The discs kept the territory. A few decades earlier, in a Calcutta hotel room in 1902, Fred Gaisberg had recorded the singer Gauhar Jaan, who ended her three minutes by announcing, into the horn, "My name is Gauhar Jaan," so the pressing plant in Germany could label her. Chapter 18 tells what the recording industry then did to all of this music. For now the point is narrower and stranger. Recording became the notation that finally worked, because it was not a notation at all. When the great radifs were at last committed to disc, played whole by masters, those recordings, not the staff transcriptions, became the canon a new generation studied.

And yet the phonograph did not retire the teacher, and this is the quiet twist the whole chapter has been walking toward. A recording preserves a performance perfectly and teaches nothing. It cannot correct you. It freezes one master's way between the notes without conferring the smallest ability to travel that way yourself. A student can wear out a recording of a tahrir and be no closer to producing one; only another throat, present and correcting, closes that gap. So the old conviction survived intact into the age of the microphone. The written page could not hold the way between the notes. Neither, in the end, could the disc. What a teacher gives still passes only from one body to another, in a room, in real time, the way it passed above the Bosphorus, one corrected phrase at a time. The machines changed the question. They never quite answered it.

LISTENING NOTES

♪ **Dariush Talai, Radif of Mirza Abdollah**

The complete Persian oral canon, set down on setar by a master of the lineage; the recording that did what no staff transcription could, preserve the radif whole, ornament and all.

♪ **Hossein Alizadeh, Ney Nava**

A modern composition rooted in the dastgah of Nava; hear the melodic models a student would spend years absorbing by ear, now breathed through the ney.

♪ **Jordi Savall and Hesperion XXI, Istanbul: Dimitrie Cantemir**

Ottoman instrumental music raised from Cantemir's letter notation of around 1700; a demonstration of exactly what a good notation can restore, and the swing and grain it cannot.

♪ **Tanburi Cemil Bey, early recordings (around 1905)**

The Ottoman tradition's first great meeting with the disc; the sound of mesk itself, caught by the machine that would change how it was learned.

♪ **Zia Mohiuddin Dagar, Raga Yaman (rudra veena)**

An hour of dhrupad alap in which the meend, the glide through the sound between the notes, is the entire art; listen for how the four syllables that name these notes fail to hold a single one of the slides.





THE ISLAMIC GOLDEN AGE — CHAPTER 9

The Bridge of Ideas: Eastern Theory and Its Journey West

Centuries before Europe had a university, Baghdad had a music theory. How the science of sound crossed from the House of Wisdom to the cathedral schools, and what was gained and lost in translation.

800 TO 1350

• BAGHDAD, CORDOBA, TOLEDO, PALERMO

كتاب الموسيقى

kitab al-musiqa · the book of
music

Sometime in the early tenth century, in Baghdad, a philosopher sits with a lute across his knees and does something that had rarely been done with such patience. He is not playing it. He is measuring it. Abu Nasr al-Farabi runs a finger down a string, stops it, plucks, listens, and writes down where his finger fell as a precise fraction of the string's length. He does this for the

oud and for two kinds of long necked tanbur, one from Baghdad and one from Khurasan, recording the actual frets that living players used, including the strange in between notes that no Greek theory had a clean name for. When he is finished he has produced the *Kitab al-Musiqa al-Kabir*, the Great Book of Music, the most complete treatment of musical sound written anywhere in the medieval world.

Three centuries later and a thousand miles to the west, in a room in Toledo, two men bend over a different kind of work. One reads Arabic aloud in a shared vernacular; the other writes the sense down in Latin. They are turning al-Farabi's map of the sciences into a language the cathedral schools of Europe can read, and when they reach the section on music, they find it filed where a European scholar did not expect it. Music sits not among the arts of grammar and rhetoric but among the mathematical sciences, beside arithmetic, geometry, and astronomy, as rigorous as any of them and answerable to number.

There is a particular vertigo in setting a medieval Arabic music treatise beside a fourteenth century European one and finding, unmistakably, the same ideas wearing different clothes. The intervals have been renamed, the framework has been fitted to a different cosmology, the examples cite different repertoire, and yet underneath, certain fundamental ways of thinking about the division of the octave and the measurement of time are clearly kin. This chapter is about how that happened, and, just as much, about the myths that have grown over how it happened.

— Reading Vertigo

The vertigo can mislead, and this is the place to be careful, because the true story is stranger and more interesting than the one usually told. It is tempting to conclude, from the family resemblance between Arabic and European theory, that Europe simply learned its music from the Islamic world. That is too much. It is equally tempting, and for a long time it was fashionable, to insist that the resemblance is coincidence and Europe owed the East nothing. That is too little. The truth lives in a narrow and well documented band between the two.

What crossed from the Islamic world into Latin Europe was not, for the most part, the actual content of Arabic music. Its modes, its neutral intervals, its specific melodies did not transfer. What crossed was a framework, a way of classifying music as a branch of mathematical science, and, even

more tangibly, the instruments themselves. The theory traveled as an idea about what music is. The oud traveled as an object you could hold.

The theory traveled as an idea about what music is. The oud traveled as an object you could hold.

That distinction is the thesis of the chapter, and it matters because getting it wrong in either direction distorts a genuine history. The medieval Islamic world produced the most advanced music theory on earth for several centuries, a fact Chapter 7 met in the *maqam* and Chapter 6 met in the science that Andalusí Córdoba took for granted. Some of that achievement reached Europe, by specific hands, in specific places, and changed how European scholars understood their own art. But it reached them selectively, as a scaffolding rather than a repertoire, and the clearest evidence of contact is not a smuggled melody at all. It is the shape of the instruments Europe was soon holding, and the very words it used to name them.

— The Philosophers of Sound

The Arabic science of music did not begin with al-Farabi, and the sidebar to this section restores the man who began it a generation earlier. But al-Farabi gave it its towering monument. Born around 872 in Central Asia and dead in 950, he was the philosopher his successors called the second teacher, ranking him just below Aristotle himself. His range covered logic, metaphysics, and political philosophy, and his work on music was no hobby. He took it seriously as a branch of knowledge, and the *Great Book of Music* is longer and more systematic than anything on the subject produced before or after it in the medieval world.

What made the book extraordinary was the way it fused two things that did not naturally fit: the Greek theoretical inheritance of Pythagoras, Aristoxenus, and Ptolemy, and the actual sound of the music al-Farabi heard around him in Baghdad. The Greeks had disagreed among themselves, above all over whether intervals should be fixed by pure number,

the Pythagorean way, or judged by the trained ear, the Aristoxenian way. Al-Farabi did not simply choose a side. He tested both against practice, and where the living music of Baghdad used intervals the Greek system could not account for, he built a theory large enough to hold them. He documented one such note with particular care, the neutral third that players produced with a fret named for the musician Zalzal, a pitch that sits between the major and minor thirds of European music and that Chapter 7 shows is still the beating heart of the maqam. And he discarded one of the most prestigious ideas he had inherited, the music of the spheres, the notion that the planets sound an inaudible harmony. He could not measure it, so he declined to believe it.

His successor in this tradition was Ibn Sina, known in Latin Europe as Avicenna, who lived from 980 to 1037 and whose medical writings would one day dominate European universities. Avicenna wrote about music inside his vast encyclopedia of philosophy and science, the *Kitab al-Shifa*, the Book of Healing, treating it as part of mathematics and natural philosophy. His account of intervals was in some ways more systematic than al-Farabi's: he ranked consonances and dissonances by how fully they blended, and he was exact about the ratios that defined each one. But his most consequential move was physiological. Drawing on his medicine, he argued that the effects of music on the body and the emotions were not the work of magic but of ordinary nature, arising from measurable interactions between sound and the nervous system, and therefore open to study. He grounded the ancient claim that music moves the soul in a frame that a European natural philosopher could later engage on his own terms.

FIGURE

Al-Kindi, the First Theorist

Before al-Farabi, before Avicenna, there was Yaquib ibn Ishaq al-Kindi, working in ninth century Baghdad at the height of the great translation movement that turned Greek learning into Arabic. He is remembered as the first philosopher of the Arabs, and he wrote the earliest treatises on music theory that survive in the Arabic language.

Al-Kindi demonstrated his intervals on the frets of the oud, the instrument that served Arab theory the way the monochord served the Greeks, and he proposed adding a fifth string to widen its range, an idea Chapter 6

met again inside the Ziryab legend. He assigned pitches to letters, an early **abjad** notation using the Arabic alphabet, so that a melody could be written down as a sequence of symbols.

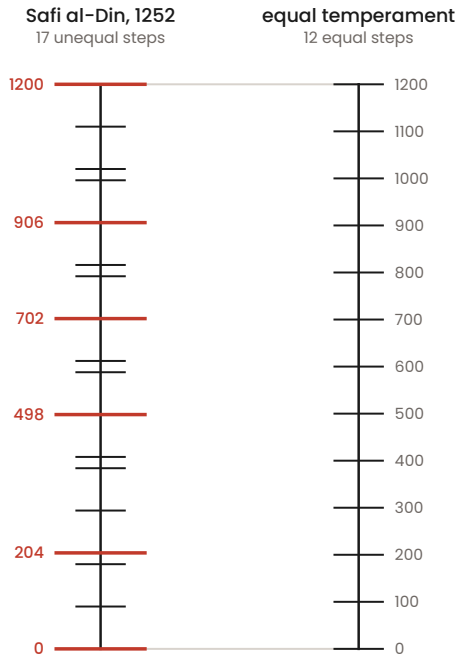
And he wrapped it all in cosmology. Following the Greek doctrine of *ethos*, al-Kindi tied the strings of the oud to the four humors, the seasons, and the elements, so that to tune the instrument was, in theory, to touch the order of the universe. It is the oldest surviving version of an idea that runs through this whole book: that music is not merely pleasant. It is true, a working model of how the world is put together.

— Safi al-Din and the Seventeen Tones

The third giant worked in a darker time. Safi al-Din al-Urmawi, born around 1216, spent his best years in Baghdad as calligrapher, librarian, and boon companion musician to the last Abbasid caliph, al-Musta'sim. In 1258 the Mongols under Hulagu sacked the city, ending the caliphate and a great deal of the learning it had gathered. Safi al-Din survived, by tradition because he performed for the conquerors and won their protection, and he went on serving the new order. Out of that wreckage came the two treatises that made him the most technically influential theorist of the medieval Islamic world: the *Kitab al-Adwar*, the Book of Cycles, written around 1252, and the later *Risala al-Sharafiyya*.

His most famous achievement is also the one earlier tellings of this story got wrong, and the correction is worth making with care, because the truth is more elegant than the error. Safi al-Din is remembered for the number seventeen, but not, as is sometimes claimed, for seventeen rhythms. His seventeen is a division of the octave. He split the span of the octave into seventeen unequal steps, generated by stacking pure Pythagorean fifths and falling into a repeating pattern the theorists named *limma*, *limma*, *comma*: two slightly larger intervals and one very small one, again and again up the scale. On that seventeen tone gamut he located twelve principal modes, the *shudud*, along with six secondary ones, the *avazat*, and these were the direct theoretical ancestors of the named *maqamat*, Rast and Husayni and Hijazi among them.

DIVIDING THE OCTAVE: 1252 AND TODAY



vermillion marks the Pythagorean spine

the 17 steps repeat: limma 90, limma 90, comma 24

Safi al-Din's seventeen tone octave, generated by stacking pure fifths into a repeating limma, limma, comma pattern, set against the twelve equal semitones of the modern piano; the extra tones are where the neutral steps of the maqam live.

The rhythmic cycles, the **iqā'at**, were a separate part of his theory, and there were not seventeen of them; the old claim simply pinned his most famous number to the wrong parameter. What Safi al-Din actually founded was a whole school of thought, the **Systematist school**, so called because it treated music as a rigorous deductive system rather than a collection of received habits. Its authority lasted four hundred years and ran through a clear line of masters: from Safi al-Din to the polymath Qutb al-Din al-Shirazi in the generation after him, and on to Abd al-Qadir al-Maraghi, who died at Herat in 1435 and whom Chapter 12 will meet again, canonized by the Ottoman musicians who treated him as a founding father. The scholar Owen Wright, who has done more than anyone to reconstruct this

tradition from its treatises, has shown how coherent and self aware it was: not a heap of observations but an architecture, with the octave measured, the modes derived, and the whole edifice resting on demonstrable ratios.

It is worth holding that lineage in mind, because it corrects a habit of thought this chapter is trying to break. The Systematist tradition did not exist in order to feed Europe and then fall silent. It was a living science that went on developing on its own terms, in its own courts, for centuries after the translation traffic had slowed. When we ask what crossed to the West, we are asking about a few threads pulled from a fabric that never stopped being woven.

— Three Cities of Translation

For any of those ideas to reach Europe, they needed places where two languages sat in the same room. Three cities did most of the work, each in its own way: Cordoba, Toledo, and Palermo.

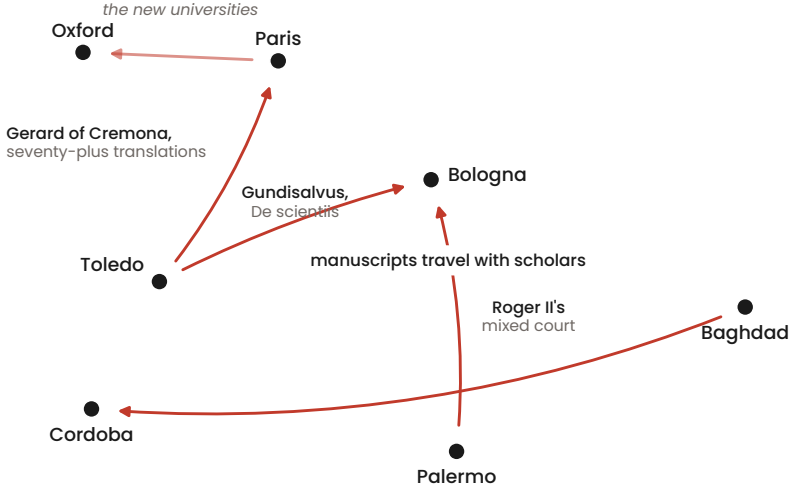
Cordoba was first, the capital of the western Umayyad caliphate that Chapter 6 described. Its glory included a library assembled under the caliph al-Hakam II in the later tenth century that the sources say held four hundred thousand volumes. The number should be held at arm's length. It is a figure the medieval writers repeat to convey magnificence, a set piece more than a catalog, and no library of the age could have been inventoried so precisely. Even discounted heavily, though, it points at something real: a concentration of books and learning that Latin Europe could not match. Into that atmosphere came curious northerners. Gerbert of Aurillac, later Pope Sylvester II, studied in the Catalan marches in the 960s and carried home mathematical and scientific ideas that had been circulating in al-Andalus, whether or not he ever read a word of Arabic himself.

Toledo was the true engine. After the Christian kingdom of Castile took the city in 1085, it became the greatest center of Arabic to Latin translation in the medieval world. The so called Toledo School was not a school with walls but a loose network of scholars, often working in pairs, a Christian or Jewish reader who knew Arabic turning the text aloud into a shared vernacular while a Latinist wrote it down. The most productive of them, Gerard of Cremona, arrived around 1144 and before his death in 1187 translated more than seventy Arabic works into Latin: astronomy, mathematics, medicine, and philosophy, including works of al-Kindi, Avicenna, and al-

Farabi. It is through Toledo that the one crucial music text crossed, though not the text most people would guess, and the next section says which.

Palermo was the third channel. Sicily had been under Muslim rule for two and a half centuries before the Normans took it, and the Norman kings, above all Roger II, who ruled from 1130 to 1154, kept the island's Arab learning rather than burning it. Roger's court ran in three languages at once, and the great Arab geographer al-Idrisi spent years there making a map of the world for a Christian king. Musicians of both traditions performed under the same roof. Knowledge did not always need to be translated to travel in Palermo. Sometimes it only needed to be overheard.

HOW ARABIC LEARNING REACHED THE LATIN SCHOOLS



vermilion arrows = the movement of translated knowledge

The road west: theory and instruments moving from Baghdad through the three translation cities of Cordoba, Toledo, and Palermo, and onward to the cathedral schools and the young universities of Paris, Oxford, and Bologna.

— What Actually Crossed

Now for the correction that turns this chapter's thesis from a pleasing story into a defensible one. It is often said, and earlier tellings of this history said it flatly, that the great Arabic music treatises, al-Farabi's and Avicenna's and Safi al-Din's, were translated into Latin and entered the European curriculum. They were not. No medieval Latin translation of al-Farabi's *Great Book of Music*, of Avicenna's music chapters, or of any work by Safi al-Din is known to exist. The detailed content of Arabic music theory, its modes and its microtones and its rhythmic cycles, stayed in Arabic.

What crossed was something at once smaller and more powerful: not the content but the classification. Al-Farabi had also written a short, separate, and enormously influential book cataloguing all the sciences and their relations, the *Ihsa al-ulum*, the *Enumeration of the Sciences*. That book was translated into Latin twice in the twelfth century, once by Gerard of Cremona and once by the Toledo philosopher Dominicus Gundissalpinus, under the title *De scientiis*. In it, music stands among the mathematical sciences, sister to arithmetic and geometry and astronomy, exactly the grouping the later Middle Ages would call the *quadrivium*. European writers read this and used it. The Paris theorist Jerome of Moravia quoted al-Farabi's account of music in his own treatise in the thirteenth century, and the encyclopedist Vincent of Beauvais folded the same material into his vast *Speculum*.

This is a smaller claim than the myth it replaces, and it is a truer one, and, in a way that ought to be savored, it strengthens the argument rather than weakening it. Europe did not borrow Arabic melodies. It borrowed, in part, the idea that music was a science of measurable sound fit to stand beside geometry, and it received that idea in a form it could actually put to work. Ideas do not travel as discrete units that can be pried out of one culture and slotted unchanged into another. They are remade in the carrying, and this idea was carried in exactly the form most likely to take root in a Latin schoolroom.

Two further corrections keep the account honest. It has been claimed that the modal theory of the church, the system of eight ecclesiastical modes, shows Arabic fingerprints. It does not need to. Those modes were fully theorized by European writers between the ninth and the eleventh centuries, in the treatise called the *Alia musica*, in Hucbald of Saint Amand, in Guido of Arezzo, drawing on the Byzantine *oktoechos* and on the late

Roman authority of Boethius, generations before the Toledo translations began. The framework of the church modes is home grown, older than the contact this chapter describes, and it needs no eastern parent.

And it has been claimed that the rhythmic revolution of the early fourteenth century, the *Ars Nova*, drew on Arabic rhythmic theory through the French theorist Philippe de Vitry. Here even the description is usually garbled. De Vitry's contribution was not a theory of rhythmic modes; the rhythmic modes were the older thirteenth century system that the *Ars Nova* replaced. His innovation was **mensuration**: a precise notation that let a note be divided into two equal parts as readily as three, with a new short value, the *minim*, at the bottom, so that composers could measure musical time with a flexibility no European notation had allowed before. Whether any of that owed a debt to Arabic thought is exactly the open question, and the honest answer is that no evidence of a textual borrowing survives.

One speculation in particular should be labeled as speculation, since earlier accounts presented it nearly as fact. There is a tempting chain that runs from the brilliant Arab engineer al-Jazari, whose treatise of 1206 described water clocks fitted with musical automata that struck bells at measured intervals, to a European culture of precise timekeeping, to de Vitry's measured rhythm. As a remark about atmosphere it has some force. You cannot develop a precise theory of rhythmic notation without first having a culture in which time is something that can be measured with precision. But as a claim of direct influence it rests on nothing documentary. Al-Jazari's clocks and de Vitry's *minims* may both belong to a slow European turn toward the measurement of time; there is no line between them that a historian can point to, and it is better to say so than to invent one. The whole subject was distorted for a while by exactly this kind of overreach. The pioneering scholar Henry George Farmer, writing in the 1920s and 1930s, argued the case for Arabic influence on European music so vigorously that a later generation recoiled and dismissed too much of it. The mature position credits the channels that can be documented and refuses the ones that cannot.

— The Instruments Made the Strongest Case

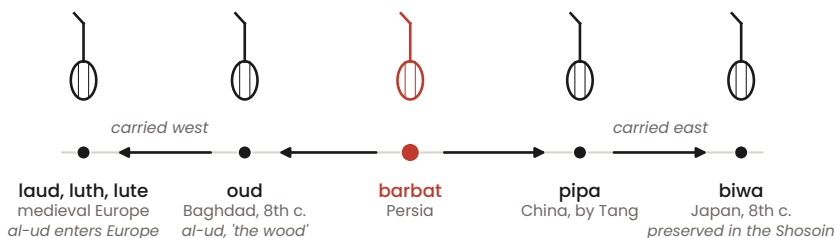
If the theory crossed as a whisper, the instruments crossed as a shout, and they left their fingerprints in the plainest place imaginable: the words. This

is the best documented channel of the whole transmission, and it needs no disputed manuscript to prove it, only a dictionary.

*If the theory crossed as a whisper, the
instruments crossed as a shout.*

The oud that Chapter 6 followed to Cordoba went north and became the European **lute**. The descent is written into the name. Arabic al-ud, the wood, became Spanish laud, Italian liuto, French luth, German Laute, English lute, each of them still carrying, in that opening consonant, the fossil of the Arabic article al. The instrument changed as it traveled, growing frets and eventually a wholly different repertoire, but travel it did, and the word went with it. By the Renaissance the lute would be the central instrument of European domestic music, the piano of its day, and its grandfather was the teaching instrument of Baghdad, the same object on which al-Kindi and al-Farabi had demonstrated their intervals.

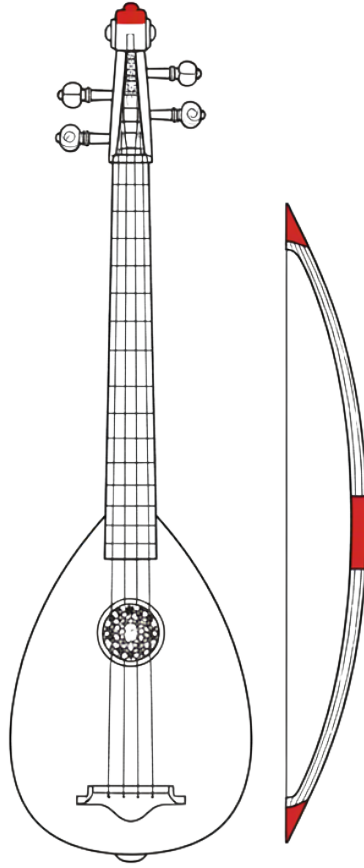
ONE INSTRUMENT, THREE CONTINENTS



every one descends from the Persian barbat

From oud to lute: the Arabic al-ud carried its own name into Spanish laud, Italian liuto, French luth, and English lute, the article al still fossilized at the front, as the instrument gained frets and passed into European hands.

It did not cross alone. The Arab rabab, a small bowed fiddle, became the European **rebec**, the pear shaped ancestor of a whole family of bowed strings that would eventually include the violin. The paired kettledrums that Arab armies called naqqara became the nakers of medieval English and French music, and the tradition of mounted kettledrums that later seated the timpani in the orchestra descends from the same source. The loud double reed of the Islamic world, the surnay or zurna, is the near relative of the European shawm, the ancestor of the oboe. The plucked box of strings the Arabs called the qanun lent its shape, and an echo of its name, to the European instruments known as the canon and the psaltery. Wave after wave of instruments crossed the same permeable frontier that carried the songs, and unlike the songs, the instruments left customs records in the form of their names. A melody can be argued out of its parentage; a loanword cannot.



The rabab, a small bowed fiddle of the Arab world whose pear shaped body and whose very name crossed into the medieval European rebec, an early member of the bowed string family that led toward the violin.

The manuscript miniatures of the *Cantigas de Santa Maria*, described in the previous chapter, show the outcome plainly: Christian and Muslim players seated together with ouds and rebabs and nakers, the shared instrumentarium of a shared Mediterranean. The painter may have idealized the social peace of the scene. He did not exaggerate the instruments, which the archaeology of words confirms independently. When a European musician of 1300 tuned a lute, bowed a rebec, or struck a pair of nakers, he was holding, whether he knew it or not, the physical evidence of contact with the Islamic world. The theory could be argued over. The instruments were simply there, in the hand, unanswerable.

— An Honest Accounting

So what, in the end, actually made the crossing? Set the ledger out plainly. The specific musical content of the Arabic tradition, the maqam modes, the neutral intervals, the characteristic phrases that give each maqam its personality, did not transfer. European music went on to build a different edifice, of harmony and counterpoint, on other foundations entirely. Avicenna's physiological theory of why music moves us was absorbed into European medicine and then quietly forgotten by European musicians. What transferred most completely was the mathematical treatment of intervals and, above everything, the framework: the classification of music as a science of number and sound, carried in al-Farabi's *Enumeration*, and the instruments, carried in the hands of merchants and minstrels and returning travelers.

It is worth being equally honest about the other direction, because the transfer is too often told as though the Islamic tradition existed only to hand its gifts to Europe and then go quiet. It did nothing of the kind. The Systematist school that Safi al-Din founded went on developing for four more centuries on its own terms, through Qutb al-Din al-Shirazi and Abd al-Qadir al-Maraghi and into the courts of the Ottomans, the Safavids, and the Timurids, where Chapter 12 will pick up its thread. The two traditions did not merge into one. They touched, each took what it could use, and each walked on in a direction the other did not follow.

The story of how Eastern musical theory reached Europe is not a story of wholesale adoption or simple influence. It is a story of partial, selective, transformative contact. It has been overclaimed by its enthusiasts and underclaimed by its skeptics, and the sober truth in the middle is remarkable enough without inflation. Across the twelfth and thirteenth centuries, in three trilingual cities, the idea that sound could be measured and classified as rigorously as the stars crossed from Arabic into Latin, and a family of instruments crossed with it, and both quietly changed the music that Europe would go on to make. This is not a small thing to have contributed. It is not always remembered, but it is real.

LISTENING NOTES

♪ Jordi Savall and Hesperion XXI, *Orient-Occident*

A concert length dialogue between medieval Middle Eastern and European melodies; the whole thesis of this chapter rendered as sound, two traditions playing in the same room.

♪ **Ensemble Al-Kindi, dir. Julien Jalaleddine Weiss, Aleppian maqam**

The living Syrian art the theorists analyzed; listen for the neutral third, the Zalzal tone al-Farabi measured on his oud, that has no key on any piano.

♪ **Naseer Shamma, solo oud**

A modern master of the fretless oud, sliding into exactly the intervals Arabic theory could notate and European staff notation could not; the instrument that would become the lute.

♪ **Clemencic Consort, dir. Rene Clemencic, Le Roman de Fauvel**

The manuscript that preserves Philippe de Vitry's Ars Nova motets; hear the new mensural rhythm, musical time measured with a precision the previous century lacked.

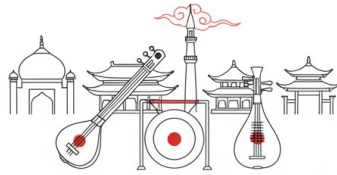
♪ **Paul O'Dette, Renaissance lute**

The oud's European grandchild, fretted and refitted for a new music; the same body and the same name, an object that crossed the Mediterranean and stayed.



PART III

Empires of Sound



*Six courts, six perfections: Mughal Delhi, Ming and Qing
Beijing, Isfahan and Istanbul, Edo, the courts of Java, and
Joseon Seoul, each tuning power itself to music.*



EMPIRES OF SOUND — CHAPTER 10

The Nine Jewels: Music at the Mughal Court

Akbar could not read, but he could listen, and he built the most musical court on Earth. At its center stood Tansen, a singer whose ragas are still performed every night, four and a half centuries later.

1526 TO 1748

• DELHI, AGRA, FATEHPUR SIKRI, GWALIOR

नवरत्न

navaratna • the nine jewels

On a winter evening at Fatehpur Sikri, the city of red sandstone that Akbar raised from bare rock and would abandon within fifteen years, the emperor is not reading. He cannot. Akbar, third and greatest of the Mughals, is unlettered, and, some scholars suspect, dyslexic, and he has built around himself a court engineered to pour the world into his ears: readers who recite to him through the night, translators turning Sanskrit epics into Persian, and, most evenings, musicians. He listens the way other men read, which

is to say closely, with judgment, returning to the passages that move him.

The painters of his own workshop left a record of what such evenings looked like. In the great illustrated Akbarnama produced in the 1590s, its folios now scattered between the Victoria and Albert Museum in London and collections beyond it, drummers and singers stand at the edges of the state scenes, the naubat announcing an arrival, musicians ranked below the throne. The convention placed music at the frame of power rather than at its center. Yet the chronicle that these paintings illustrate tells a fuller story. Abul Fazl, Akbar's minister and biographer, records an emperor who convened debates about music, held opinions about it, and kept the finest singers of the age within reach. Put the pictures and the text together, and you have, in effect, the portrait of a man listening.

This matters because the Mughal court became, in the last decades of the sixteenth century, the most musically consequential royal establishment in the history of the subcontinent, and it did so under a ruler who treated listening as a form of governance. The claim of this chapter is that what was built there was less a style than a machine for making music and keeping it: the lineage school, the master-and-disciple bond, the raga as organizing law, and the very shape of a serious performance. That machine still runs. The ragas credited to the singer at the center of Akbar's court are being performed somewhere in India tonight.

— A Portrait of a Man Listening

Akbar's musical literacy was not a courtesy the chronicles paid him. Abul Fazl devotes a portion of the *Ain-i-Akbari*, the administrative third volume of the Akbarnama, to music and to the men who made it, and he ranks them: thirty-six leading musicians of the imperial establishment, Hindu and Muslim, singers and instrumentalists, with Tansen placed first and praised as a singer such as India had not produced in a thousand years. The list is a bureaucratic document, a payroll of excellence, and it is the single most reliable thing we possess about music at Akbar's court. It tells us that the emperor's household treated musicians the way it treated its cavalry and its clerks: as ranked servants of the state, assessed and recorded.

What did the emperor actually listen to? Abul Fazl reports that Akbar loved Hindi song above the Persian and Turkish music of his ancestors, an unusual preference for a Timurid prince and a clue to how thoroughly the dynasty was becoming Indian. The emperor is said to have set the

day's watches to music, to have learned something of performance himself, and to have judged competitions between singers with a connoisseur's ear. Whether every anecdote is exact matters less than their consistency. The court remembered its ruler as a listener with taste, and it built its musical life to satisfy him.

Popular memory compressed all of this into the legend of the **navaratna**, the nine jewels, the nine most brilliant men of Akbar's court, Tansen always among them beside Birbal the wit and Abul Fazl the chronicler. The number is tidier than the history. The lists do not agree, and the grouping owes as much to later storytelling as to any imperial decree. But the legend preserves a real fact about status. A singer stood in the same category as the empire's ministers and its scholars. He was not the court's entertainer. He was one of its ornaments, and the distinction was understood at the time.

CONCEPT

The Ain-i-Akbari's Musicians

Abul Fazl's *Ain-i-Akbari*, the administrative volume that closes the *Akbar-nama*, is the most reliable window we have onto music at Akbar's court. In its survey of the imperial household it lists thirty-six leading court musicians, Hindu and Muslim, vocalists and instrumentalists, arranged by rank, and it places Tansen at the head, calling him a singer such as had not appeared in India in a thousand years.

The same volume turns a bureaucrat's precision on the *naubat* that played from the palace gate. Abul Fazl enumerates its kettledrums, cymbals, oboes, and trumpets, counts how many of each the imperial band employed, sets down the appointed watches at which it sounded, and records that the emperor took a close personal interest in it.

Together these two entries, a payroll of virtuosi and a clock made of drums, show music doing two jobs at once at the Mughal court: art at the center, time at the gate.

— What the Mughals Brought and What They Found

The dynasty arrived carrying Central Asian and Persian ears. Babur, its founder, wrote fine poetry and noticed everything, but his four years on the Indian throne left no time to build musical institutions. His son Humayun spent much of his reign in flight, and the most consequential stretch of

that flight, for our purposes, was the period he passed as a guest at the Safavid court of Shah Tahmasp in Persia, the world Chapter 5 and Chapter 12 describe. He came home with his throne restored and his taste deepened, bringing Persian aesthetic values, and Persian musicians, into the Indian court his son would inherit. The timing was fortunate in a way Humayun could not have planned. Tahmasp, in a fit of piety, was in the process of driving music from his own court, an edict Chapter 12 follows, and some of the singers and instrumentalists he cast out found their way east to Delhi. Persia's loss seeded Hindustani music at exactly the moment it was ready to flower.

What those Persian musicians met in India was not a blank slate but a mature and independent art, the raga and tala system Chapter 4 lays out, already a thousand years deep. The Mughal achievement was never invention. It was synthesis and, above all, patronage: the resources to keep hundreds of hereditary specialists at their craft, generation after generation, and the prestige that made mastery worth a lifetime. Sound also structured the court's very sense of time. At the gateway of every Mughal palace stood the naqqara khana, the drum house, where a standing ensemble of kettle-drums, oboes, and long trumpets called the naubat sounded the watches of the day and announced the emperor's comings and goings. Music here was not entertainment layered on top of power; it was one of the instruments through which power announced that it existed.

What Akbar's establishment therefore contained, by the 1560s, was two great streams running side by side. One was the Persian and Central Asian art music of the incomers, built on the modal science that Chapter 12 traces to the Systematist school, its twelve maqam and its careful arithmetic of intervals, played on instruments like the long-necked tanbur and the qanun. The other was the raga and tala of the subcontinent, with its ancient theory of shruti and its conviction that a mode is bound to a mood and to an hour of the day. Neither system absorbed the other. Instead they learned to sit in the same room, and vocabulary began to leak across the divide: Persian instruments took up Indian ragas, Indian singers took up Persian poetic forms, and a shared court repertoire slowly formed that was recognizably neither Isfahan nor Gwalior but Delhi. Akbar, characteristically, did not resolve the friction so much as convene it, keeping masters of both within earshot and letting them argue in front of him. When Abul Fazl catalogues the court's instruments, he lists the Persian and the Indian side by side, as though the distinction were already becoming a matter of ancestry rather

than of use.

— Tansen: the Man and the Miracles

He was born Ramtanu Pandey near Gwalior, probably around 1500, into a world where Gwalior already meant music. Tradition names Swami Haridas of Vrindavan, the bhakti mystic, as his teacher, and the Gwalior court style as his training; both may be true. He served Raja Ramchandra of Rewa before Akbar summoned him around 1562, and he remained at the imperial court until his death on the twenty-sixth of April, 1586. Akbar gave him the honorific Miyan, master, and it fused permanently to his name and to the ragas he left behind.

The legends arrived almost before the man was cold. He could bring rain, they said, by singing Raga Megh, or Megh Malhar; he could kindle fire by singing Raga Deepak, and once, commanded by Akbar to prove it, had to stand in the Yamuna to cool the flames his own voice had lit.

*These stories are not history, but they are not
nothing either.*

They tell us what people believed the highest music could do, and they tell us that Tansen's contemporaries placed his art at the boundary between the ordinary and the miraculous. The same framework of belief that made a raga a map of cosmic and emotional forces, the framework Chapter 4 lays out, made it entirely reasonable to a sixteenth-century listener that a master of raga might command the weather. Whether Tansen believed it, no source says. The rival that later folklore gave him, a wandering ascetic genius named Baiju Bawra who supposedly bested Tansen in open contest, is largely a creation of twentieth-century cinema, hardened into fact by a hit film of 1952; the historical evidence for any such duel is thin, and the older tale that made Baiju a nobleman's son does not survive scrutiny.

What the record does support is a man of the Indo-Islamic borderland as much as of any single faith. Tansen is buried at Gwalior beside the tomb of Muhammad Ghaus, the Shattari Sufi master and patron whose circle

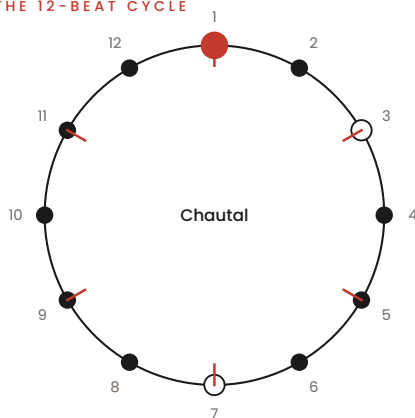
had shaped Gwalior's musical and spiritual life, and every winter musicians still gather at that grave for the Tansen Samaroh, a festival held over a singer four centuries dead. To erase Ghaus from the story, as tidy retellings sometimes do, is to erase the Sufi ground in which this music grew.

— Dhrupad: the Sovereign Form

Tansen worked chiefly in **dhrupad**, the oldest surviving form of North Indian classical song and, in the sixteenth century, the sovereign form at every serious court. Its authority came partly from Gwalior, where Raja Man Singh Tomar, who reigned from 1486 to 1516, had gathered musicians, sponsored new dhrupad texts in Hindi rather than Sanskrit, and, by tradition, composed himself. The tradition sorts dhrupad into four banis, or styles of delivery, named Gauhar, Khandar, Dagar, and Nauhar, and the Dagar line carries the form into the present day.

A dhrupad performance is an exercise in patience and structure. It opens with alap, an unmeasured exploration of the raga sung on open vowels and sacred syllables, the voice testing each note and the silence around it. The alap gathers a pulse and becomes jor, and the pulse quickens into nomtom, a driving, wordless rush of syllables like nom and tom and re na. Only then does the composed song, the **bandish**, enter, set to a weighty tala and carried by the barrel drum called the pakhawaj. The alap, jor, and jhala sequence that instrumentalists use is a later cousin of this vocal architecture, not its source. The commonest dhrupad tala is chautal, twelve beats grouped in six pairs, and its slow revolution gives the singer room to build, as the figure shows.

CHAUTAL, THE 12-BEAT CYCLE



the dhrupad tala: pakhawaj, not tabla

dha dha | din ta | kite dha | din ta | tite kata | gadi gana

● sam (beat 1)

○ khali (beats 3, 7)

Chautal, the sovereign dhrupad cycle: twelve matras in six pairs, the pakhawaj marking each turn until the phrase lands back on the first beat, the sam.

The aesthetic is deliberately austere: full and resonant tone, enormous breath, ornament kept structural rather than decorative, and above all the forceful oscillation called gamak that shakes a note until it seems to have an interior. Nothing in dhrupad hurries, and nothing is merely pretty. It was built to sound like sovereignty, and a listener meeting it for the first time should not expect to be charmed so much as slowly convinced.

Learning it took a decade and a body remade. A dhrupad singer trained the diaphragm the way an athlete trains a muscle, holding a single note steady for the length of a long breath and then longer, until the tone could be pushed, bent, and shaken at will. The pakhawaj player, seated alongside, learned a parallel discipline on a barrel drum played with both hands, its deep left head and sharp right head speaking the composed cycle in syllables and holding the singer to the tala without ever overwhelming the line. This was music that could not be picked up from a book, and the years it demanded are one reason the guru-shishya bond, master and disciple living and working together, became the tradition's only real school.

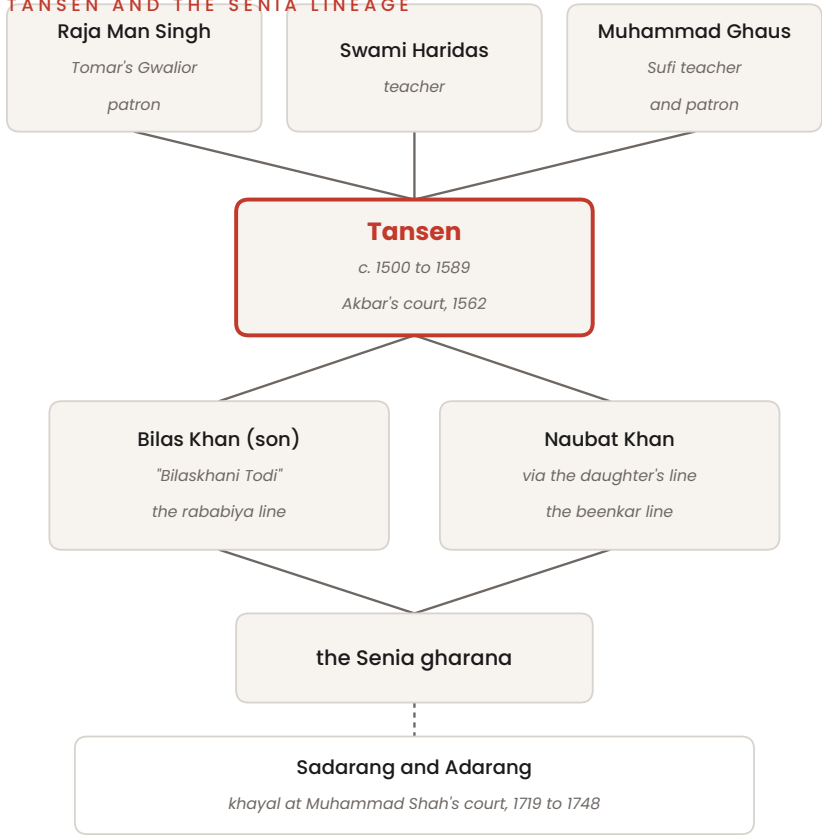
— The Rain Ragas: Tansen's Living Legacy

Tansen's most durable legacy is not a story but a handful of ragas still in nightly circulation. Tradition credits him with *Miyan ki Malhar*, a monsoon raga heavy with the approach of rain; *Miyan ki Todi*, a raga of the late morning; and *Darbari Kanada*, a grave, deep-night raga whose name remembers the *darbar*, the court itself. Whether Tansen fixed each of these in the exact form we now sing is unprovable, as such attributions always are, but the ragas are real, canonical, and performed constantly. A tradition that keeps a man's ragas alive for four hundred years has found a way of preserving him that outlasts any monument.

Of the three, *Darbari Kanada* carries the heaviest freight of legend. The tradition says Tansen shaped it for Akbar's own *darbar*, slowing and deepening an older *Kanada* until it became a raga for the late hours, its lower notes shaken with a slow, wide oscillation that seems to drag at the ground. Whether or not the story is literally true, the raga does what the story claims: it sounds like gravity, like the weight of a court settling into the night. Four centuries on, it is still where many concerts choose to end.

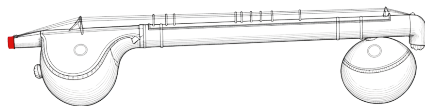
His blood and his teaching split into two channels, and the figure traces them. His sons founded the *rababiya* branch, players of the *rabab*, the plucked lute; his daughter's line, through the son-in-law who took the name Naubat Khan, founded the *beenkar* branch, players of the *rudra veena*. Both branches, together with their many disciples, became known as the *Senia gharana*, the house of Sen, the oldest named lineage in Hindustani music, a *gharana* being a stylistic house whose members, bound by blood or long discipleship, share a recognizable way of shaping a raga. One of Tansen's sons, Bilas Khan, is credited with the raga *Bilaskhani Todi*; the legend, told for centuries, is that he composed it in grief at his father's deathbed, and that the dead man's hand rose at the sound. Legend again, and labeled, but it records how completely these descendants understood themselves as custodians of one voice.

TANSEN AND THE SENIA LINEAGE



From Gwalior to the present: Tansen's training under the Gwalior tradition and Muhammad Ghaus, his rababiya and beenkar descendants, the Senia gharana, and the dotted later line to the khayal composers Sadarang and Adarang.

The instrument at the heart of the beenkar line was the rudra veena, the been, a heavy stick zither with two great gourd resonators that Tansen himself is said to have played, its low strings capable of a sustained, meditative gravity that suits the raga's slow unfolding better than any voice.



The rudra veena, or been: a thick tube of wood slung between two large gourds, its metal strings pressed and pulled across raised frets to make a deep, sustained tone bend from one note to the next.

The Senia beenkars were conservative by temperament, guarding dhru-pad and the older raga knowledge long after fashion had moved on, and that very conservatism is why some of the oldest layers of this music reached the twentieth century at all. What looked like stubbornness was, in retrospect, a kind of archiving.

— Khusrau's Long Shadow

Behind the whole Mughal synthesis stands a figure who died two and a half centuries before Akbar was born. Amir Khusrau, who lived from 1253 to 1325, was a poet and musician at the courts of a succession of Delhi sultans and a devoted disciple of the Chishti Sufi saint Nizamuddin Auliya; his admirers called him the Tuti-yi Hind, the Parrot of India. The Mughals inherited a musical culture that traced its own descent to him, which is why he belongs in this chapter although he lived in an earlier one.

The tradition credits Khusrau with an almost impossible catalogue: the invention of the sitar, the tabla, the khayal form, the qawwali, and a shelf of ragas. Modern scholarship has quietly returned most of these gifts. The instruments alone give the game away. The sitar, in anything like its present form, is an eighteenth-century Delhi instrument, and the musicologist Allyn Miner traces its earliest firm association not to Amir Khusrau but to one Khusrau Khan, a player at the eighteenth-century court of Muhammad Shah. A garbled line in an English account of 1834, by Augustus Willard, seems to have fused the two Khusraus into a single figure and handed the ancient poet an instrument built four hundred years after his death. What is genuinely his, or his tradition's, is subtler and larger: the deliberate marriage of Persian poetic sensibility to Indian musical form, and the Sufi conviction that music is a vehicle for the divine. The qawwal bacche, the children of the qawwals, a hereditary line of Sufi singers who trace themselves to Khusrau, carried that synthesis across the centuries, and it was partly from their world, as much as from dhru-pad, that khayal would eventually emerge.

Some of what the tradition attaches to his name is better read as the memory of a whole synthesis compressed into one heroic figure, the way

cultures often do with their founders. The qawwali sung at Nizamuddin's shrine in Delhi today, the massed, hand-clapping devotional song that Chapter 16 follows into the recording age, does descend from the practice of Khusrau's circle, even if no single melody can be laid at his door. His real monument is not an instrument but a habit of mind: the assumption, built into North Indian music ever since, that a Persian ghazal and a Hindavi devotional song can share a stage, a mode, and a God.

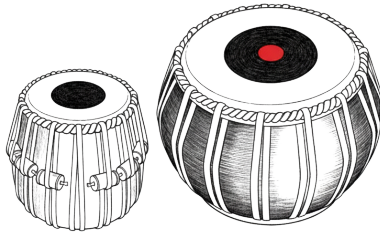
— Sadarang and the Birth of Khayal

Khayal, whose name comes from an Arabic word for imagination, is the form that eventually displaced dhrupad as the dominant Hindustani vocal music, and it reached its mature shape in the early eighteenth century at the court of the emperor Muhammad Shah, called Rangila, the colorful, who reigned from 1719 to 1748 over an empire shrinking in territory and flowering in art. Its architects were two musicians whose names survive inside their own compositions. Sadarang, whose real name was Niyamat Khan, was a *beenkar* of extraordinary gift who composed hundreds of khayal bandishes but, by tradition, would not stoop to sing the newer form himself, writing it instead for others; his nephew Firoz Khan composed under the name Adarang. By the poetic convention of the *takhallus*, the pen name folded into the final lines, they signed their songs inside the lyric, and so a singer today, reaching the last verse of a bandish, still names its author: Sadarang, Adarang.

Their compositions are still sung today, three centuries later, which is a form of survival that most music does not achieve.

Khayal loosened what dhrupad had held rigid. Its compositions are shorter, its texts often personal and amorous, its ornament freer, and its relationship with the drummer conversational rather than ceremonial, because khayal rides not the *pakhawaj* but the *tabla*, the pair of hand drums whose own origin sits in the same eighteenth-century Delhi world. The

tabla, too, attracted the Amir Khusrau legend, complete with a tale of an enraged drummer splitting a pakhawaj in two with a blow. The first documented tabla player is in fact Sidar Khan Dhari, a drummer of pakhawaj lineage at Muhammad Shah's court and the fountainhead from whom the Delhi tabla tradition, and hence every later tabla gharana, descends. The instrument that today seems to have been in India forever was, in the era of Sadarang, brand new.



The tabla: a wooden right-hand drum and a metal or clay left-hand drum, each headed with a black tuning paste, the fingers striking rim, center, and edge to produce the spoken syllables of North Indian rhythm.

A mature khayal performance settles into two movements. The bada khayal, the great khayal, is slow and expansive, and in it the singer opens the raga much as a dhrupad alap would; the chhota khayal that follows is faster, letting agility and rhythmic play take over. Sadarang and Adarang wrote for both, and they wrote for a court living on borrowed time. Muhammad Shah lost Delhi's treasury to Nadir Shah's invasion in 1739 and much of his authority with it, yet his reign is remembered less for that humiliation than for the music made under it, which is its own quiet comment on where a civilization keeps its real wealth.

— After the Court

The court's musical decline is usually pinned on one emperor, and usually unfairly. Aurangzeb, who ruled from 1658 to 1707, has come down in popular history as the puritan who killed Mughal music, an image sealed by a much-repeated anecdote in which his musicians carry a bier through the streets in mock mourning for Music herself, and the emperor tells them to bury her so deep she will never rise. The historian Katherine Butler Schofield has taken that story apart. Aurangzeb was himself trained in

music. What he renounced, around 1668, was music at his own person, a personal austerity, not a ban across his empire. Patronage continued in the households of his nobles and in the imperial women's quarters, and, by Schofield's count, more musical treatises were written during his reign than under any Mughal before him. The music did not die under Aurangzeb. It decentralized.

The written record bears this out. The Rag Darpan, a Persian treatise on Indian music completed in 1666 by a nobleman writing under the name Faqirullah, belongs to exactly this supposedly barren period, one of a whole shelf of Mughal-era works, in Persian and Sanskrit alike, that set down what the court and its households knew. A tradition that is being written about this attentively is not a tradition in retreat.

When the empire itself weakened, after Nadir Shah's sack of Delhi in 1739 and the long unraveling that followed, its musicians did what musicians do: they followed the patronage to wherever power had pooled next, to Lucknow and Rampur and Gwalior and the courts of the Rajput and princely states. The ethnomusicologist Daniel Neuman has shown how this dispersal, accelerating through the nineteenth century, hardened the loose lineages of the Mughal court into the named, competitive *gharanas* that Chapter 17 examines and that Chapter 21 shows the tradition still leaning on today.

Much of what dispersed was carried by women the official histories barely name. The courtesans of Lucknow and the other successor courts, the *tawaif* and the professional singing women of the *baiji* lineages, were among the most accomplished musicians of their age, keeping *khayal*, and the lighter *thumri* and *ghazal*, alive in the salons when the great courts could no longer afford them. Chapter 17 returns to these women and to the paradox of their later erasure. For now it is enough to say that any history of this music which names only emperors and *ustads* has lost half of its performers.

What the Mughal centuries actually built was a system rather than a sound: the *gharana* as a vessel for transmission, the guru and disciple bound together for years, the *raga* as the law under which everything else operates, and the concert arc, from unmetered *alap* through the composed song, as the shape of serious performance. None of these were invented at Akbar's court, but there they were consolidated and given the resources to endure. They endured. The *gharanas* still stand. The *bandishes* of Sadarang are still sung. The *ragas* of a man who died in 1586 still open

the night. Somewhere in India, as you read this, someone is singing Miyan ki Malhar into the first rain of the monsoon, and an emperor who could not read is, in the only way that finally mattered, still listening.

LISTENING NOTES

♪ **The Dagar Brothers (Nasir Zahiruddin and Nasir Faiyazuddin), dhrupad in Raga Miyan ki Malhar**

Tansen's monsoon raga sung in the austere Dagar-bani style; follow the full arc from unmeasured alap through jor into the wordless drive of nomtom before the bandish arrives.

♪ **Zia Mohiuddin Dagar, Raga Yaman on the rudra veena**

The been alone, Tansen's instrument, at its most meditative; listen for how a single note is pulled slowly across the fret until it changes meaning.

♪ **Ustad Rashid Khan, khayal in Raga Darbari Kanada**

A modern Rampur-Sahaswan master in a raga tradition traces to Tansen's court; hear the flexible, conversational play between voice and tabla that dhrupad never allowed.

♪ **Uday Bhawalkar, dhrupad in Raga Bhairav**

A living heir of the Dagar tradition, proof that the sovereign form is still being sung whole four centuries on; notice the sheer breath behind each phrase.





EMPIRES OF SOUND — CHAPTER 11

Elegance and Opera: Ming and Early Qing China

A prince calculated equal temperament with an abacus decades before Europe. A singer polished a regional accent into four centuries of opera. Ming China perfected music for the state, the self, and the stage.

1368 TO 1790

• NANJING, SUZHOU, BEIJING

崑曲

kunqu · the water-polished
opera

Before dawn on the winter solstice, the emperor climbs the altar south of the palace to sacrifice to Heaven. He has fasted; the court has rehearsed for weeks; the musicians of the ritual bureau have been in place since the middle of the night, ranked beside their bell frames and chimestone racks in the freezing dark. A single bronze bell sounds the foundation tone. The chimestones answer. Then the singers begin, one syllable to a breath, mov-

ing at the speed of ceremony rather than the speed of feeling, while files of dancers raise pheasant feathers and flutes in gestures older than the dynasty. Nothing here is for pleasure. Every pitch is prescribed, every robe and step specified, because this music is not a performance for Heaven. It is part of the machinery by which the empire stays aligned with it.

The same evening, in a garden in Suzhou a thousand kilometers south, a flute rises over a murmur of strings, and a young woman in silk begins to sing about longing so slowly that each word blooms, bends, and fades like incense. Her audience of scholars and merchants knows every phrase. Some of them sing it themselves, at home, for each other, as a mark of cultivation. Between these two scenes, the altar and the garden, with the scholar's silent studio set somewhere between them, runs the whole musical life of Ming China.

This chapter's claim is that the Ming, a dynasty founded on restoration, perfected three musics at once: ritual music for the state, the qin for the self, and a new opera for society. Two of its achievements still astonish. A prince of the imperial house, working with an abacus, solved the tuning problem that had haunted Chinese theory since the bells of Chapter 2, decades before any European. And a provincial singing master polished the accent of one small city into kunqu, an operatic art so refined that four centuries later it is still on stage. The dynasty that set out to recover the past kept inventing futures.

— Restoration in Sound

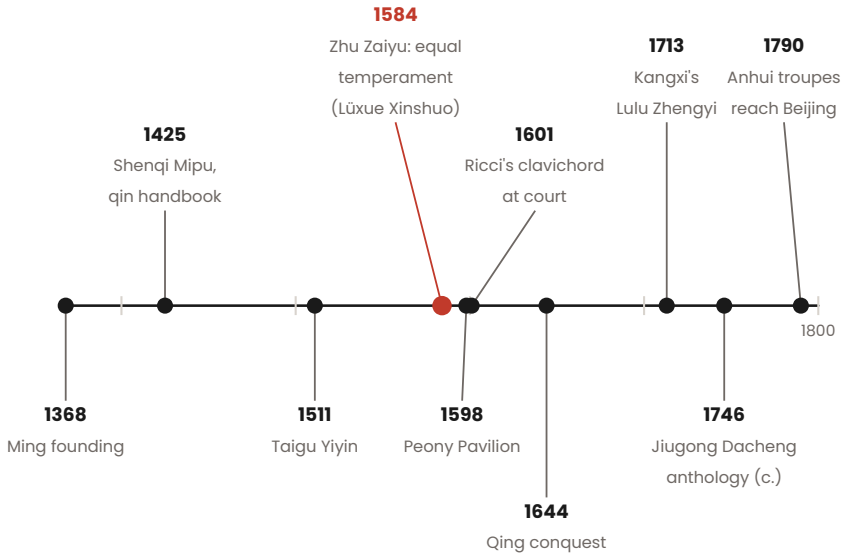
The Ming founder came from the bottom of the world he would rule. Zhu Yuanzhang, a famine orphan and sometime monk turned rebel general, drove the Mongol Yuan dynasty from China in 1368 and proclaimed a new dynasty from Nanjing under the reign name Hongwu. A century of foreign rule had, in the eyes of the scholar officials who staffed his government, contaminated Chinese civilization, and the new state's program was restoration: of dress, of ritual, of learning, and, near the top of the list, of music. In the Confucian theory the Ming inherited, the theory Chapter 2 traced to the Yueji, correct music harmonizes ruler with Heaven and people with ruler, while wrong music, licentious, excessive, foreign, corrodes the state as surely as corrupt officials. To rebuild yayue, the elegant music of the ancient courts, was to prove the Mandate had come home.

The court's own image making shows the priority. Ming ritual handbooks and audience paintings picture musicians in studied formality, robes sober, spacing exact, hands hovering over strings in poses closer to liturgy than to performance. Such paintings are not really about music. They are about the idea of music, about what music was supposed to mean in a properly governed Confucian state. The distinction between music as sound and music as idea runs through the whole era, shaping what was performed, what was written down, and what the record left out.

The difficulty was that the idea had outlived the sound. The actual music of the Zhou courts was two thousand years gone, its performance tradition broken and rebuilt many times over by war, dynastic collapse, and the sheer difficulty of maintaining tuning standards across centuries. Ming scholars worked honestly from the ancient texts, the Zhouli, the Liji, the Yueji, but texts underdetermine sound, and the gaps were filled with the musical sensibility of the reconstructors' own time. Joseph Lam, the modern historian of Ming state sacrifice, has shown court officials debating pitch standards, hymn settings, and dance formations with the seriousness other bureaucracies reserve for taxes and war, and has shown too how much quiet creativity hid inside the rhetoric of recovery. The *yayue* of the Ming court was Ming music dressed in Zhou clothes.

That restoration was only the beginning of the story. The same dynasty that rebuilt the altar produced the first printed treasuries of qin music, the mathematics of equal temperament, and the rise of *kunqu*; the Qing that followed compiled, codified, and calcified what it inherited, until a birthday celebration in 1790 opened the door to something new. The timeline lays out the arc this chapter travels, from Hongwu's ritual bureaus to the Anhui troupes' arrival in Beijing.

MING AND EARLY QING MUSIC, 1368 TO 1800



Four musical centuries in one arc: Zhu Quan's *Shenqi Mipu* (1425), Zhu Zaiyu's equal temperament (1584), *The Peony Pavilion* (1598), Ricci's clavichord at court (1601), the *Lülü zhengyi* (1713), the *Jiugong dacheng* compendium (c. 1741 to 1746), and the Anhui troupes' arrival in Beijing (1790).

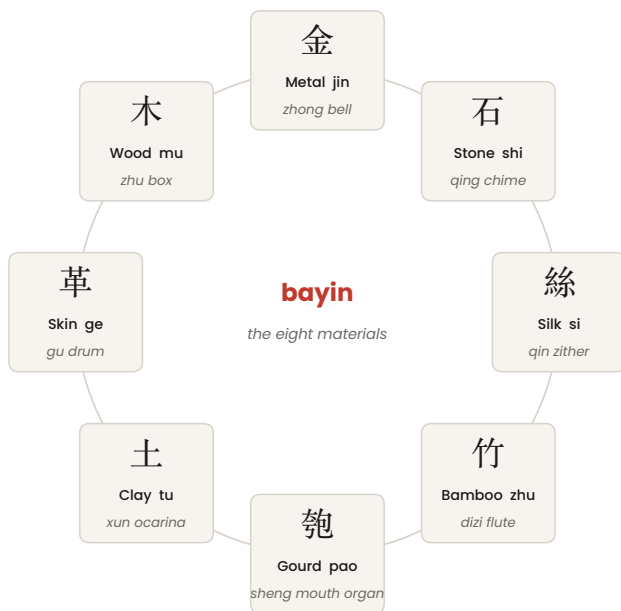
— The Court of Sacrifices

The agency responsible for the state's music was the Taichang si, the Court of Imperial Sacrifices. The name needs a word of rescue, because the character *si*, which in later usage settled into meaning a Buddhist temple, means in bureaucratic titles a court in the administrative sense: an office, a department of state. The Taichang was no temple. It was a government agency with registers, budgets, examinations, and personnel files, and its musicians were, in effect, liturgical civil servants, drilled for the great sacrifices to Heaven and Earth, the imperial ancestors, the altars of soil and

grain, and Confucius himself. Entertainment was another department altogether: banquet music and theatricals belonged to the Jiaofang si, the entertainment music office. The old line between yayue and suyue, drawn by the philosophers of Chapter 2, was now drawn on an organization chart.

What the Taichang ensembles played was scored for the ancient inventory. Instruments were still classed by the eight materials of the bayin, metal, stone, silk, bamboo, gourd, clay, skin, and wood, and a full ritual orchestra sounded all eight, a completeness that was itself the message, as the wheel in the figure shows. Pride of place went to the oldest strata: the bianzhong bronze bells and bianqing chimestones whose Bronze Age ancestors Chapter 2 left buried at Leigudun. A court that could field properly tuned bells was making an audible claim about its own legitimacy, its connection to the idealized past.

BAYIN: THE EIGHT SOURCES OF SOUND



The eight materials of the bayin, from bronze bell to wooden clapper: a Ming ritual orchestra sounded all eight, because a rite addressed to the whole cosmos required an orchestra built from the whole material world.

Properly tuned, however, begged the ancient question: tuned to what? The *huangzhong*, the Yellow Bell fundamental from which all other pitches were generated, was tied to the state's weights and measures, and Ming scholars relitigated its exact length for two centuries, in memorials, commissions, and rival treatises. The debates could look like antiquarian hair-splitting. They were closer to constitutional law, since a court that recalibrated its foundation tone was recalibrating its claim to cosmic alignment. And beneath them lay a genuine mathematical wound, inherited from the tuning spiral of Chapter 2, that no amount of textual scholarship could heal. Its cure would come from inside the imperial family itself, and this chapter comes to it shortly.

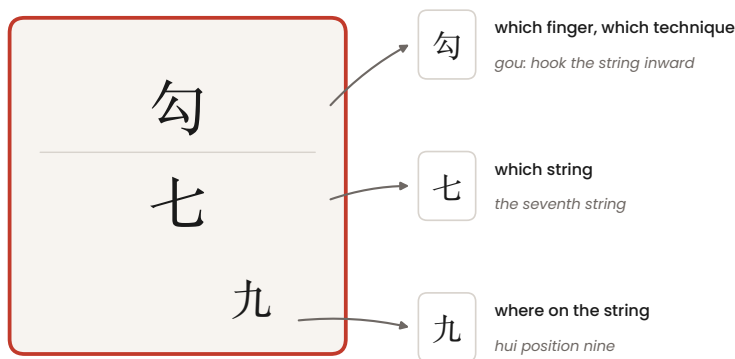
— The Scholar and His Qin

Away from the altar, in the studios of the scholar officials, the quietest instrument in China was having its most consequential century. The *guqin*, the seven stringed zither of Chapter 2, had by the Ming accumulated two millennia of association with sages and self-cultivation. To play it was to join a lineage, and the era's great innovation was to put that lineage into print. Handbooks of qin music, called **qinpu**, began issuing from court and provincial presses, and the earliest to survive is also among the greatest: the *Shenqi Mipu*, the Wondrous and Secret Notation, compiled in 1425 by Zhu Quan, seventeenth son of the Ming founder and Prince of Ning. A scholarly prince safely distant from succession politics, Zhu Quan gathered sixty four pieces, including *Guangling San*, the melody that legend says died with the poet musician Ji Kang at his execution in 262 CE. The legend is disproved by the book that preserves it: here is the piece, printed by a prince, playable today. Later collections followed in waves, Xie Lin's *Taigu Yiyin* of 1511, the vast *Fengxuan Xuanpin* of 1539, dozens more across the dynasty, until the qin repertoire became one of the best documented bodies of early music anywhere on earth.

What filled those pages was not staff notation but **jianzipu**, reduced character tablature, a system developed in the Tang dynasty and traditionally credited to the scholar Cao Rou. Each printed cluster is a compressed composite character, stacking abbreviated signs that tell the player which string, which finger, which stroke, where to stop, when to slide; the figure takes one cluster apart. What *jianzipu* does not record is nearly as important as what it does: it fixes gesture, not duration, so rhythm lives with the

teacher, and two players reading the same page will produce recognizably the same piece breathing at different tempos. Chapter 8 described every notation as a theory of what music is. Jianzipu's theory is that music is the memory of a master's hands, and the page exists to remind, never to replace.

JIANZIPU: ONE CHARACTER, ONE INSTRUCTION



one character = one complete playing instruction

One jianzipu cluster decoded: abbreviated signs for string, finger, and stroke compressed into a single composite character, a notation that records the hand's gesture and trusts the teacher with the time.

The culture around the instrument valued a listener even above a player. Its founding parable, told since the Warring States, concerns the qin master Yu Boya and the woodcutter Zhong Ziqi, who heard mountains in his playing when Boya thought of mountains and rivers when he thought of rivers. When Zhong Ziqi died, Yu Boya broke his guqin and never played again, because there was no one left who could truly hear him. The word that story bequeathed, *zhiyin*, the one who knows the tone, remains the Chinese term for a perfect friend. The repertoire the Ming presses preserved lives inside that sensibility: pieces named for wild geese, plum blossoms, drunken fishermen, autumn moonlight over still water, an aesthetic of re-

straint, of suggestion over statement, of empty space as meaningful as filled space. The same brush that painted mist left silence between the notes.

— The Prince Who Solved the Octave

Now the wound beneath the tuning debates, and the man who closed it. Chapter 2 left Chinese theory with a beautiful machine and a flaw: generate the twelve pitches by the sanfen sunyi method, alternately cutting a third and adding a third, and the spiral overshoots the octave by a quarter of a semitone. The consequences were practical. Pitches derived by pure fifths drift as you transpose, so music that changed keys wandered out of tune, bell founders compromised, and every dynasty's pitch commission inherited the error and passed it on. Two thousand years of adjustment had softened the problem. Nothing had solved it.

The solution came from a corner of the system built to produce ornamental princes, not mathematicians. Zhu Zaiyu was born in 1536 into the house of Zheng, a cadet branch of the imperial clan in Henan. When he was a teenager his father, a bookish prince, was stripped of rank and imprisoned on a rival's accusation, and the family chronicle says the son moved out of the palace into a hut of earthen walls and lived there for nineteen years, studying mathematics, astronomy, and music while the case dragged on. Out of that exile came the *Lüxue Xinshuo*, the New Explanation of the Study of the Pitchpipes, completed in 1584. Its central act is one of the great moves in the history of acoustics: stop trying to build the scale from pure fifths at all. Divide the octave instead into twelve exactly equal steps, each with the ratio of the twelfth root of two, a number no fraction expresses. Zhu Zaiyu computed it by brute arithmetic on the abacus, carrying the result to twenty five decimal places: 1.059463 and onward. Tune each semitone to that ratio and the spiral closes into a circle. The thirteenth pipe lands exactly home; every key is equally in tune, none perfectly pure, and the compromise is distributed so evenly that no ear can locate it.

The spiral that had refused to close for two thousand years closed on the beads of an abacus.

Europe reached the same destination independently, and later. Simon Stevin drafted a flawed calculation around the turn of the seventeenth century and never published it; working equal temperament conquered European keyboards only across the following two centuries. Joseph Needham and Kenneth Robinson, surveying the history in *Science and Civilisation in China*, credit Zhu Zaiyu with the first mathematically exact formulation of equal temperament anywhere. His own court shelved it. The Ming ritual establishment had no appetite for a theory that dethroned the sacred numbers of the ancients, and the prince's books were received, praised, and ignored. Zhu Zaiyu seems not to have been surprised; he had already petitioned the throne, repeatedly and successfully, to give away the principedom he inherited, and he died in 1611 a private scholar by choice. The temperament he calculated now tunes very nearly every piano on earth, arrived at again by people who had never heard his name.

FIGURE

Zhu Zaiyu, the Prince Who Declined a Throne

Born in 1536 to the princely house of Zheng, Zhu Zaiyu answered his father's disgrace by moving into an earthen walled hut outside the palace gate, the family chronicle says, and staying nineteen years. The hut produced a polymath: mathematician, music theorist, historian of dance, builder of pitchpipes.

His Lǔxue Xinshuo of 1584 gave the first exact solution of twelve tone equal temperament, the semitone ratio computed on an abacus to twenty five decimal places, decades ahead of Europe. He refined the system in the Lǔlǔ Jingyi of 1596 and defended its arithmetic in further treatises, complete with pipe lengths a workshop could cut.

When the principedom finally fell to him, he petitioned for fifteen years to renounce it in favor of a cousin's line, and won. The dynasty took the title back and left the mathematics alone; the mathematics, in the end, is what conquered the world.

While the prince calculated, Europe knocked. In 1601 the Jesuit Matteo Ricci was admitted at last to Beijing, and among the gifts he presented to the Wanli emperor was a clavichord. The court accepted it as a curiosity; the missionary Diego de Pantoja stayed to teach four palace eunuchs to play, and Ricci supplied eight moral song texts for the instrument. It was a small episode with a long echo: the first sustained encounter between

Chinese and European ideas about tuning had begun, in the very decades when a Chinese prince had already solved the problem Europe's keyboards were struggling with. Neither side knew what the other had. A century would pass before the two conversations met in print, at the court of a Qing emperor, later in this chapter.

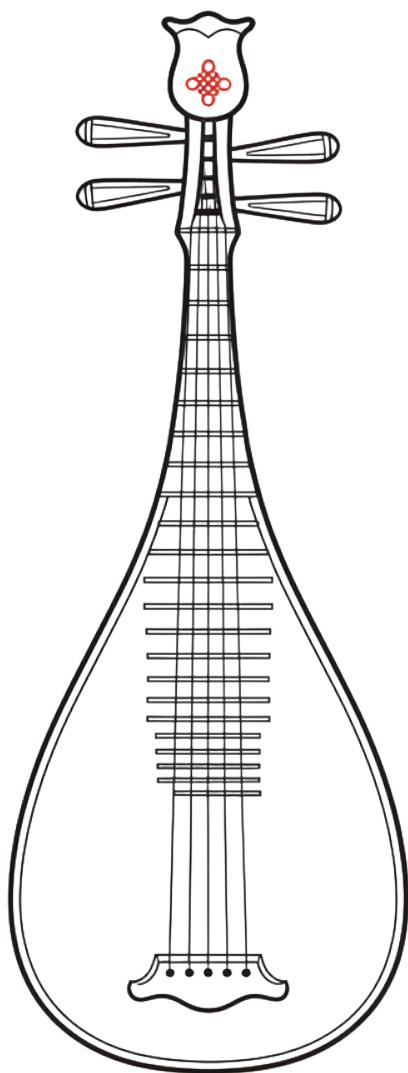
— Wei Liangfu Polishes a Voice

The third room of Ming musical life was the noisiest. In the sixteenth century the Yangtze delta was the richest urban civilization on earth, its canal cities thick with merchants, presses, silk money, and theaters, and its favorite entertainment was *chuanqi*, southern sung drama. Audiences could choose among rival regional voices: the *Haiyan qiang* of Zhejiang, favored for its polish; the *Yuyao qiang*; and the *Yiyang qiang* of Jiangxi, loud, percussion driven, and famous for its signature device, the *bangqiang*, an off-stage chorus that answers and doubles the stage voice so the song seems to come from everywhere at once. *Yiyang* style traveled well and pleased crowds enormously, which was precisely what cultivated listeners held against it. To literati ears the regional voices were vigorous but rough, and the local singing of Kunshan, a canal town near Suzhou, was merely one dialect among many.

Then a singing master decided to polish it. Wei Liangfu, active in the mid sixteenth century in the Kunshan and Taicang district, set out to remake Kunshan singing into something that could satisfy the most exacting taste in the empire. The tradition says he shut himself away for ten years without once coming downstairs, and the number is surely legend doing its usual work, but the labor it gestures at was real and collective. His circle included Zhang Yetang, a northerner and master of the *sanxian* lute, who carried the older discipline of northern drama singing south and adapted its instrumental rigor to the new style. What emerged was called **shuimo diao**, the water polished style, its name borrowed from the water milling that grinds rice flour to silkiness: singing slowed and smoothed until each syllable opens into a head, a belly, and a tail, floated on breath, placed with the precision of calligraphy.

The polish had a technology. Kunqu ornamentation is a codified repertoire called **runqiang**, moistening the melody: the slides, grace notes, turns, and shaded swells that a singer applies to each syllable according to its vowel, its linguistic tone, and its emotional weight. Chinese is a tonal

language, in which the pitch contour of a syllable is part of its meaning, and the deepest craft of kunqu lies in choreographing melody and word tone so that neither breaks the other. Done well, the result seems less like a text set to music than like language discovering it could always sing. Around the voice sits a chamber ensemble led by the dizi, the transverse bamboo flute, with xiao, sheng, sanxian, and pipa shadowing the vocal line, and a hardwood clapper keeping the slow pulse.



The pipa, the pear shaped plucked lute of the kunqu ensemble: four strings
under bent frets, capable of martial thunder as a solo voice, but employed
here to shadow a singer at the speed of unfolding silk.

The new style needed a stage vehicle, and convention assigns the first full kunqu drama to Wei Liangfu's younger contemporary Liang Chenyu, whose Huanshaji, Washing Silk, appeared in the 1570s. Within a generation the water polished voice had conquered the delta and begun conquering the empire: troupes carried it up the Grand Canal, wealthy households trained their own performers, and singing kunqu respectably became part of what it meant to be educated. One town's accent, patiently ground smooth, had become the sound of Chinese high culture, and it would hold that place for four centuries.

*Ten years of polishing turned one town's accent
into four centuries of opera.*

— The Peony Pavilion

Every art gets, if it is lucky, one work that shows the world what it is for. Kunqu's arrived in 1598. Tang Xianzu, a brilliant, prickly official from Jiangxi who had ended a middling career by retiring to his hometown of Linchuan, completed Mudan Ting, The Peony Pavilion, in fifty five scenes. Its heroine, Du Liniang, the sheltered daughter of a provincial governor, dreams of a young scholar in a garden, wakes transformed, and wastes away from a longing the waking world cannot satisfy. She dies; she paints her own portrait before dying; and when the real scholar of her dream, Liu Mengmei, later finds the portrait and falls in love with the woman in it, his love calls her back across the boundary of death. The resurrection is not treated as a miracle so much as a verdict: feeling, pursued with total sincerity, outranks every institution built to contain it, a scandalous and thrilling proposition in a neo-Confucian world.

The poetry carried it. The Peony Pavilion is often called the supreme work of Chinese dramatic literature, and its garden aria, in which Du Liniang first sees the ruined spring around her, is the most famous passage in the kunqu repertoire. It also occasioned the era's great quarrel about words and music. The prosodist Shen Jing, keeper of kunqu's strict tonal formulas, circulated revisions bending Tang's lines to fit the music's rules, and Tang is said to have retorted that he would rather the empire's singers strained their throats than change a word. The quarrel was never resolved, because it cannot be: it is the permanent argument, inside every sung drama, between the claims of the poem and the claims of the tune.

Kunqu staged such arguments with a cast organized by type. The role system that matured on its stages sorted every character into sheng, the male roles; dan, the female roles; jing, the painted face roles of generals, gods, and outsized temperaments; and chou, the clowns; each type with its sub-varieties, its vocal placement, its walk, its sleeve language. A trained spectator read the stage the way a musician reads a score. Keep those four syllables in mind, because Chapter 17 will find them, intact, organizing a louder art: the Beijing opera that inherited kunqu's stagecraft.

— Kangxi to Qianlong: Compilation and Calcification

The Ming fell in 1644, and the Manchu conquerors who founded the Qing faced the standard dilemma of conquest dynasties: rule a civilization by force, or rule it by embracing what it revered. With music, as with most things, they chose embrace. Kunqu was by now so thoroughly identified with educated Chinese culture that to patronize it was to claim legitimacy, and the Kangxi emperor, on the throne from 1661 to 1722, was more than a strategist about it; he was an enthusiast who maintained palace troupes, followed the delta's performance styles, and attended kunqu on his southern tours.

His court also took up pitch. The imperial treatise *Lülü zhengyi*, completed in 1713, restated the classical theory of the pitchpipes under the emperor's name, and its continuation volume, prepared with the Jesuit court musicians Tomas Pereira and Teodorico Pedrini, set out European staff notation in an official Chinese publication for the first time. The conversation Ricci's clavichord had opened a century earlier had reached the statute books, even as court practice, with magnificent indifference to both Jesuits and Zhu Zaiyu, went on tuning by the ancestors' numbers.

Under the Qianlong emperor the codifying impulse reached its monument: the *Jiugong dacheng nanbeici gongpu*, compiled around 1741 to 1746, an enormous anthology gathering thousands of northern and southern aria patterns, the *qupai* on which sung drama was built, fixed at last in print. Its scores used **gongche** notation, the working musician's solfege, in which characters pronounced *shang, che, gong, fan, liu, wu, and yi* name the degrees of the scale and run down the page beside the words. Humbler than the scholar's *jianzipu* and far more widely read, *gongche* was the notation of theater pit and teahouse, and it would carry Chinese opera, including the Beijing opera of Chapter 17, into the twentieth century.

Compilation preserved *kunqu*, and embalmed it a little. Imperial patronage prefers the reproducible text to the living variant, and as the scores standardized, the art refined itself toward exquisiteness: slower tempos, subtler ornament, connoisseurship deepening as accessibility drained away. Wealthy families kept household troupes; gentlemen amateurs prized their own unpaid polish above professional fire; and the delta's teahouse public, wanting blood and thunder, drifted to earthier styles, the descendants of the *Yiyang* voice among them, that the record keepers barely bothered to describe. The three musics of this chapter had settled into their long division of labor. *Yayue* was for the state. The *guqin* was for the self. *Kunqu* was for society, the shared possession of educated culture, and by the late eighteenth century it was a possession more curated than alive.

The hinge came disguised as a birthday. In 1790, for the Qianlong emperor's eightieth birthday celebrations, a troupe from Anhui province called *Sanqing, Three Celebrations*, came up to Beijing to perform, and stayed. Three more Anhui companies followed in the years after, *Sixi, Chuntai, and Hechun*, and together they became known as the Four Great Anhui Troupes: popular, flexible, singing in accents the capital found deliciously fresh. In the following decades their music would meet melodies carried north by Hubei performers, and out of that fusion the capital would get a new opera, faster and louder than *kunqu* and destined to eclipse it. Chapter 17 tells that story. This one ends where the Ming project deserves to rest: not in decline, but in achievement. Between the altar at dawn, the studio at midnight, and the lantern lit stage, Ming and early Qing China built a complete musical civilization, and an astonishing amount of it survives. The rite is still performed in Confucian temples; the *qinpu* are still open on players' desks; the prince's temperament tunes the world's pianos; and in 2001, when UNESCO proclaimed its first masterpieces of human-

ity's intangible heritage, kunqu, the water polished voice of a Suzhou canal town, stood at the head of the list.

LISTENING NOTES

♪ **Guan Pinghu, Guangling San**

The melody legend says died with Ji Kang in 262 CE, resurrected from Zhu Quan's Shenqi Mipu of 1425: all iron under the qin's silk, and proof of what the printed qinpu preserved.

♪ **Zhang Jiqing, The Peony Pavilion: The Interrupted Dream**

The great Du Linliang of the Jiangsu kunqu stage in the garden scene of 1598; hear the runqiang ornaments open each syllable into head, belly, and tail.

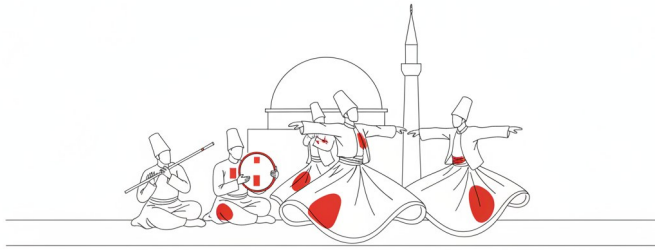
♪ **Suzhou Kunqu Opera Theatre, The Young Lovers' Edition of The Peony Pavilion**

Pai Hsien-yung's 2004 production, which refilled the theaters with audiences under thirty; the water polished style doing its work on a new century.

♪ **Wu Man, Shimian Maifu (Ambush from Ten Sides)**

The pipa's great battle piece: tremolo as war drums, snapped strings as swords, the loud virtuoso world that thrived beyond the scholar's studio.





EMPIRES OF SOUND — CHAPTER 12

Shahs, Sultans, and Dervishes: Safavid Persia and the Ottoman World

One empire banned its own court music out of piety; the other built the most elaborate art music in Islam. Between Isfahan and Istanbul, song became the way an age remembered itself and reached for God.

1501 TO 1846

• TABRIZ, ISFAHAN, KONYA, ISTANBUL

سماع

sama · the listening

In the summer of 1501 a boy of fourteen rides into Tabriz at the head of an army and has himself proclaimed king. His name is Ismail. He was born in July 1487, which makes the arithmetic of his power startling: he is younger than most of the soldiers who kneel to him, younger than the theologians he will soon summon to remake a nation's faith. On his head sits the taj, a

tall red cap with twelve gores, the badge of the Qizilbash, the “red heads,” the Turkmen holy warriors who believe their teenage master is something close to divine. He speaks Azerbaijani Turkish as his first language and writes poetry in it under the pen name Khatai. He will make Twelver Shia Islam the religion of everything he conquers, and he conquers nearly all of it. The dynasty this boy founds, the Safavids, will rule Persia until 1736 and will raise, at Isfahan, one of the most beautiful cities the Islamic world ever built.

Nine hundred miles to the west, in a domed hall in the Ottoman lands, a very different scene repeats itself week after week. A single voice rises unaccompanied, a hymn to the Prophet composed by a man named Itri. A reed flute answers with a long, breathy, unmeasured sigh. Then men in white robes and tall brown hats rise to their feet, let their black cloaks fall, cross their arms over their chests, and begin, slowly, to turn. This is the *sama*, the listening, and it is not a performance. It is a form of prayer that these Ottomans consider among the highest achievements of their civilization.

Between these two rooms, the throne hall at Tabriz and the *semahane* where the dervishes turn, runs the story of this chapter. Two Muslim empires, one Shia and Persian, the other Sunni and Turkish, received the same inheritance of sung poetry and modal theory that Chapter 5 traced through medieval Persia, and they did opposite things with it. One grew so anxious about music’s power over the soul that it drove its own court musicians into exile. The other made music the architecture of both its worship and its court, and built the most elaborate art music in the history of Islam. The paradox is the point, and both halves of it grow from a single conviction: that music is not idle entertainment but a force that works directly on the human interior, for good or for harm, and must therefore be taken with the utmost seriousness.

— The Boy King and the Red Crown

The Safavid adventure began not as a state but as a Sufi order. Two centuries before Ismail rode into Tabriz, his ancestor Sheikh Safi al-Din of Ardabil had founded a mystical brotherhood in the mountains of Azerbaijan. Over generations the order turned militant and messianic, gathering the Turkmen tribes of Anatolia and Azerbaijan into a fighting movement that expected its sheikh to be more than a man. These were the Qizilbash, and

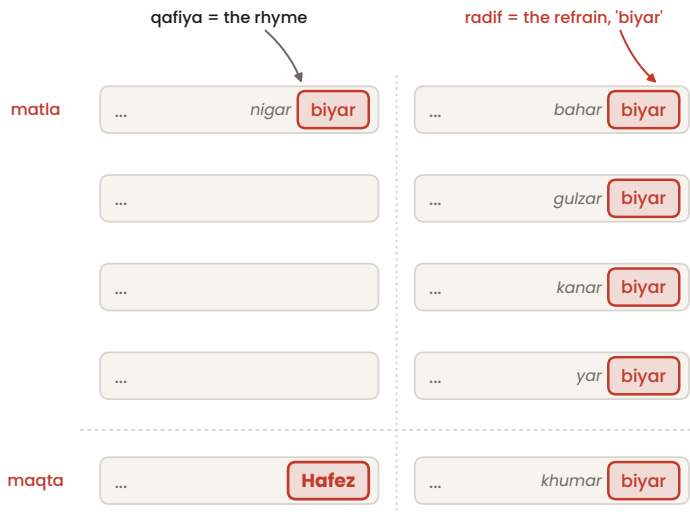
when the fourteen year old Ismail became their master he inherited both an army of devotees and their conviction that he was semi-divine. He used them to conquer Persia and to convert it, by the sword where persuasion failed, from a largely Sunni land into the Shia heartland it remains today. In 1514 his cavalry met the Ottoman guns at Chaldiran and lost badly, a defeat that fixed the border between the two empires, and the two confessions, for centuries, and turned the rivalry of this chapter into a permanent condition of the region.

The dynasty's golden age arrived a century later under Shah Abbas I, who moved his capital to Isfahan in 1598 and rebuilt it as a stage set for empire: the vast Naqsh-e Jahan square, the blue and turquoise domes, the covered bridges, the ordered gardens that earned the city its proverb, *Isfahan nesf-e jahan*, Isfahan is half the world. Into all this refinement the Safavids received the whole Persian musical inheritance that Chapter 5 described: the poet-musician ideal, the modal theory of Safi al-Din and Maraghi, the deep union of verse and song. What they did with that inheritance is the strangest turn in Persian music history, and to understand it we have to look first at the art they never doubted for a moment.

— The Ghazal: Sacred and Profane at Once

If the Safavids were divided about musicians, they were wholehearted about poetry, and the form they loved above all others was the **ghazal**. A ghazal is a lyric of longing, short, usually between five and twelve couplets, built on a discipline that a diagram serves better than a sentence can. Every couplet closes with the same rhyme, the *qafiya*, followed by the same refrain word or phrase, the *radif*; the poet weaves his own pen name, the *takhallus*, into the final couplet like a signature pressed into wax. The opening couplet sets the rhyme and refrain, and each couplet after it approaches that fixed ending from a fresh angle, so the poem circles and returns around a single word much as a dervish turns around a single point on the floor.

ANATOMY OF A GHAZAL



The matla rhymes on both hemistichs; every later couplet echoes the radif once.

The anatomy of a ghazal: couplets bound by one shared rhyme, the qafiya, closing on a repeated refrain, the radif, with the poet signing his pen name, the takhallus, in the final couplet. Every verse circles the same word from a new direction.

The subjects are wine, the beloved's face, separation, the tavern, the rose, the nightingale, the candle flame. And here lies the quality that made the ghazal the perfect vehicle for a culture arguing with itself about pleasure and piety: its images mean two things at once. The wine is earthly wine and it is the wine of divine ecstasy. The beloved is a human face and it is the face of God. The tavern is a room where lovers drink and it is the heart that holds the mystery. This double register, literal and mystical in the same instant, was not a trick or a hedge. It was a theology, and the ambiguity was the point. A singer could perform a ghazal at a banquet as elegant entertainment, and the identical words, sung in a Sufi lodge, could carry a listener toward annihilation in the divine.

*The wine is earthly wine and it is the wine of
divine ecstasy, and the ambiguity was the point.*

The poets whose ghazals became the standard texts were mostly older than the Safavid state itself. Hafez of Shiraz, who died around 1390, was the supreme model; his Divan became one of the most widely owned books in the Persian world, opened at random for divination as often as read for pleasure, a practice called *fal-e Hafez* that is alive to this day. Rumi's ecstatic ghazals, gathered in the Divan-i Shams, were set to music across the Persian and Ottoman worlds alike. Sa'di of Shiraz supplied still more, and here a common slip is worth correcting: his ghazals live in his Divan, not in the Golestan and Bustan, which are his celebrated books of moral tales in prose and couplet. The Safavid musicians, then, were rarely makers of new poems. They were interpreters of a canon already three centuries deep, and their whole art lay in how a performer might inhabit a ghazal's emotional world rather than simply pronounce its words.

— Music Under Suspicion: the Safavid Paradox

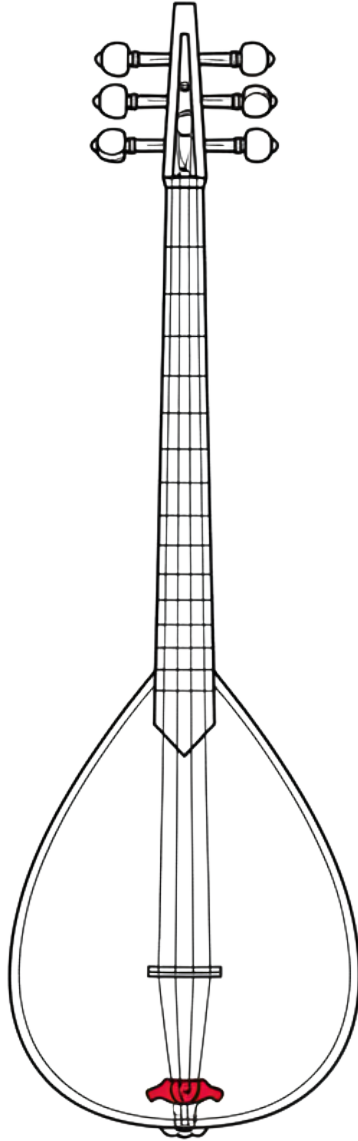
Here the Safavid story turns against itself. The very dynasty that had sprung from a Sufi order, and that prized the ghazal above every other art, grew steadily more hostile to music as sound. The reason was the Shia orthodoxy Ismail had installed. The powerful clergy of the new state religion regarded music, and above all the instrumental court music bound up with wine and worldly pleasure, as a spiritual danger, and the shahs, whose legitimacy rested on that clergy, came increasingly to agree with them.

The decisive act fell in the reign of Ismail's son. Shah Tahmasp, who ruled from 1524 to 1576, underwent a public crisis of conscience and in 1556 issued an edict of "sincere repentance," renouncing wine, music, and courtly pleasure and dismissing the musicians of his court. This was no passing mood. It set the tone for a dynasty. Court patronage of art music, the soil in which the Persian tradition had grown since the Samanid days of Chapter 5, was withdrawn at the very top, and the effects rippled outward for generations. A later ruler, Shah Sultan Husayn, revived the clerical hostility with force at the end of the seventeenth century.

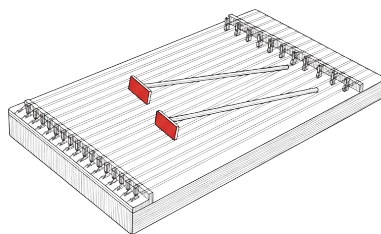
Musicians did what skilled workers always do when the work dries up: they left. Many of the finest Persian musicians and poets migrated eastward, to the one court that wanted them more than any other, Mughal India, where Akbar and his successors were assembling the lavish musical establishment that Chapter 10 describes. The same decades carried Persian poets and their “Indian style,” the *sabk-i hindi*, to Delhi and the Deccan. The Safavid repentance edict, in a real and traceable sense, helped stock the Mughal court, and that migration is a direct thread running between this chapter and that one. Persia’s loss was Hindustan’s gain.

The suspicion left a lasting hole at home. Because court music was starved for so long, very little Safavid era repertoire survived as living sound, and when Persian classical music was finally reorganized in the nineteenth century under the Qajars, into the *dastgah* system and the memorized *radif* that Chapter 7 lays out, it was necessarily a reconstruction rather than a straight inheritance. Hormoz Farhat, the scholar who mapped the modern *dastgah*, treats the *radif* frankly as a nineteenth century codification, not an unbroken line reaching back to Safavid times. The gap is the paradox’s fingerprint.

Even the instruments must be dated with care, because the ensemble a modern listener pictures for a Persian court is largely wrong for this one. The music that did endure at the Safavid court, in Sufi lodges, in coffee-houses, in the lamentation of the Shia passion plays, was made on the period’s actual instruments: the *ud*, the short lute Chapter 5 followed from the Sasanian *barbat*; the *chang*, the angular harp still visible in Safavid miniatures before its long fade to extinction; the *tanbur*, the fretted long lute of the theorists; and the *daf*, the frame drum. The *setar*, the *santur*, the *tar*, and the bowed *kamancheh* that define Iranian classical music today were either later refinements or outright later arrivals. The *setar* in its familiar four string form belongs to the eighteenth and nineteenth centuries; the *tar* and the *santur* rose to their central place only in the Qajar era, generations after the court this chapter opens in.



The tar, the skin topped double bowl lute that now defines the Persian classical sound. For all the antiquity of its name, the instrument in this shape is a Qajar era refinement, later than the Safavid ensemble of ud, chang, tanbur, and daf.



The santur, a hammered dulcimer of some seventy two wire strings struck with light wooden mallets. Central to Persian music today, it rose to prominence only in Qajar times, after the Safavid court in which this chapter begins.

The same care applies to theory, where the received account of Persian music carries a stubborn anachronism worth correcting outright. Safavid era musicians did not think in dastgahs. The dastgah, and the radif that organizes it, are Qajar; they did not yet exist. The framework a Safavid theorist actually used was the one Chapter 5 built toward, the Systematist scheme of Safi al-Din and Abd al-Qadir Maraghi: the twelve maqam and twenty four shu'ba, descendants of the seventeen tone octave. To read the dastgah back into the Safavid court is to hear the wrong century, exactly the error this book keeps on guard against.

— The Ottoman Synthesis

Turn now to the empire that did the reverse. Where Safavid Persia let its court music wither, the Ottomans cultivated theirs into the most elaborate art music the Islamic world produced. The engine was the palace itself. Inside the Topkapi complex the Enderun, the inner school that trained the empire's administrators, also trained its musicians, and the sultans were not merely patrons but practitioners. Several composed, and one of them, Selim III at the turn of the nineteenth century, was a serious composer and instrumentalist who opened his court to a burst of musical invention. The tradition drew on everything within reach: the Persian modal theory of Maraghi, Byzantine and Greek melody, Arab practice, and the folk material of Anatolia and the Balkans, fused over three centuries into something unmistakably Ottoman.

Its makers, strikingly, came from every community of a multi-confessional empire. Ottoman classical music was never solely Muslim

music. Greek, Armenian, and Jewish composers and performers stood at its center rather than its margins. A Jewish tanbur master remembered as Tanburi Isak taught the sultan Selim III himself. The most consequential of all the men who wrote this music down, as we are about to see, were an Armenian and a Pole. This openness was not sentimental tolerance; it was simply how the music worked, transmitted through a shared professional world that ran straight across the lines of faith.

That transmission was overwhelmingly oral, taught by the exacting apprenticeship called *mesk*, in which a student absorbed a piece through repetition until it lodged in the body. Yet the Ottoman world also produced, against the general Eastern preference for memory over paper that Chapter 8 examines, three remarkable attempts to fix the music in writing, and between them they preserved a repertoire that would otherwise be lost. In the mid seventeenth century Ali Ufki, born Wojciech Bobowski, a Pole captured and raised in the palace, notated hundreds of pieces in his *Mecmua-i Saz ü Söz* using European staff notation written from right to left to match the Ottoman page. Around 1700 the Moldavian prince Dimitrie Cantemir devised a letter based notation and used it to preserve some three hundred and fifty instrumental works together with a treatise on the theory; without Cantemir, the instrumental music of the seventeenth century court would be little more than a rumor. And in the early nineteenth century the Armenian musician Hamparsum Limonciyan created the system that still bears his name, Hamparsum notation, which served as the standard way of writing Turkish music for a hundred years. Owen Wright and Walter Feldman, the two scholars who have done most to reconstruct this tradition, work directly from these pages.

FIGURE

Abd al-Qadir Maraghi, the Bridge

No one connects the two halves of this chapter more completely than a theorist who died before either empire existed. Abd al-Qadir Maraghi, born around 1353 near Tabriz, was the last of the great Systematist theorists whom Chapter 5 followed to Herat: a musician of the Jalayirid and then the Timurid courts who was carried off to Samarkand by Timur and died in the plague year of 1435.

Maraghi wrote in Persian, served Persian and Central Asian courts, and

belonged wholly to the medieval Persianate world. Yet it was the Ottomans who made him immortal. His treatises and the compositions attributed to him were copied, taught, and revered in Istanbul for centuries; Ottoman musicians regarded him, in effect, as the founder of their art, and pieces bearing his name anchored the oldest layer of their repertoire. When Cantemir and later collectors wrote down the Ottoman classics, Maraghi stood at the head of the line.

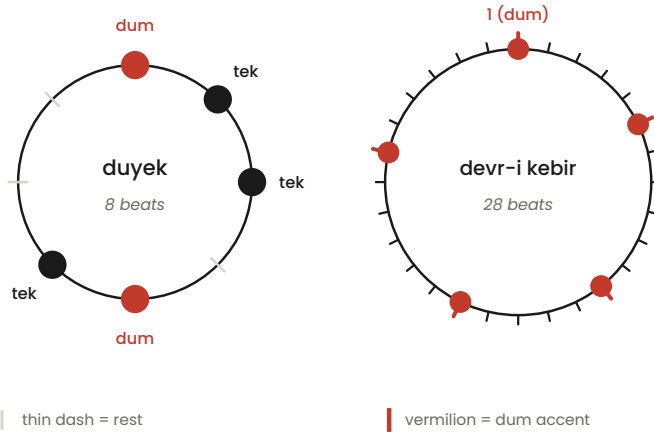
That a Persian theorist who never saw Istanbul became the patron saint of Turkish classical music is the deep truth this chapter keeps meeting. The modal tradition was one civilization's common property, and the borders that shahs and sultans drew across it were political, not musical.

— Makam and Usul: Architecture in Time

The Ottoman system rests, like its Persian and Arab cousins in Chapter 7, on two pillars: a theory of melody and a theory of time. The melodic pillar is the **makam**, the Turkish form of the word *maqam*, a mode defined not merely by its scale but by its *seyir*, its characteristic path of movement, where it begins, how it rises and falls, where it comes to rest. Ottoman theory eventually mapped its pitches with great precision, dividing the whole tone into nine commas and recognizing dozens of makams, each with its own gravity and mood. But a makam is learned as a way of moving through pitch, not as a ladder of fixed notes, and that difference is the whole art.

The temporal pillar is the **usul**, the rhythmic cycle, and it has no real equivalent in Western music. An *usul* is a fixed pattern of beats of specified weight, marked out by two basic drum strokes, the low *düm* and the high *tek*, that can run from a mere handful of beats to enormous spans. The short cycles are graspable at once: *sofyan* in four, *düyek* in eight, the limping *aksak* in nine. The long ones organize time on an architectural scale, the twenty eight beats of *devr-i kebir*, the forty eight of *çenber*, the eighty eight of *darb-i fetih*, cycles so extended that a listener who does not know the pattern feels the pulse but misses the structure entirely, the way a reader unaware that a sonnet has fourteen lines still hears every word.

TWO USUL CYCLES: SHORT AND LONG



A composition holds its usul for its entire length.

Two Ottoman rhythmic cycles drawn as clocks: the eight beat *düyek* and the twenty eight beat *devr-i kebir*, each a fixed sequence of low *düm* and high *tek* strokes that a whole composition rides from first bar to last.

On these two pillars the Ottomans raised the *fasil*, the suite in a single *makam*, a sequence of composed and improvised movements: the unmeasured *taksim* that reveals the *makam*, the instrumental *peşrev*, the grand vocal *kâr* and *beste*, the lighter *şarkı* that would come to dominate later centuries, and a closing instrumental *saz semaisi*. A trained listener could hear a performance and name not only the *makam* and the *usul* but the formal type of every piece, and that layered recognition, mode and cycle and form together, was itself a large part of the pleasure. Ottoman music asks to be heard by people who know how it is made.

— The Turning: Rumi and the Mevlevi Way

The most exalted use the Ottomans found for all of this was worship, and it centered on the order founded in the memory of a thirteenth century poet whom Chapter 5 already introduced at his reed flute. Jalal al-Din Rumi was born in 1207 and lived most of his life in Konya, in Seljuk Anatolia,

as a respected jurist and teacher, until in 1244 he met a wandering mystic named Shams-i Tabrizi and was transformed. Out of that friendship, and its shattering loss, came the ecstatic *Divan-i Shams* and the vast *Masnavi*, and a conviction that music and turning were roads to God. Rumi died in 1273, and his followers, organized by his descendants into the Mevlevi order, built around his poetry the ceremony the world now knows as the dance of the whirling dervishes.

That ceremony is the *sama*, and the *sama* turns on a musical composition called the **ayin**, one of the most sophisticated forms in all of Ottoman music. Every ayin, without a single exception, opens the same way: with the *Naat-i Mevlana*, a solo hymn to the Prophet in makam Rast, composed around the turn of the eighteenth century by the master Itri. Itri, who died about 1712, was reckoned the greatest Ottoman composer of the classical age; of the more than a thousand works tradition credits to him, only around forty survive. But one of those forty begins every Mevlevi ceremony performed anywhere on earth, which is a strange and beautiful form of immortality. After the *Naat* comes the ney's first breath, a long unmeasured *taksim*, and only then the ceremony proper.

The heart of the ayin is its four **selams**, its four greetings, each a movement in its own rhythmic cycle and each marking a stage of the soul's ascent. The first selam, commonly set in a stately long *usul*, represents the human being's awakening to the knowledge of God. The second, lighter in its cycle, is the rapture of witnessing the divine majesty. The third, which quickens into the fast *yürük semai*, is the dissolution of the self in divine love, the state the Sufis call annihilation. The fourth returns the dervish to his station on earth, a servant once more, carrying home what he has found. The music moves through these stages with exact structural logic, and the makam chosen for a given ayin colors the entire journey.

The turning itself is not a display, a thing that cannot be said too often, because it is so constantly mistaken for one. Everything in it is doctrine made visible. The dervish rotates on his own axis while circling the floor, one hand turned up to receive from heaven and one turned down to pour onto the earth, a channel between the two. The white robe is the burial shroud, the tall felt hat is the tombstone, and the turning is a kind of dying to the self. These are not decorative metaphors; they are the plain theology of the act. And the instrument that opens it all, the ney, carries the same meaning in sound: the reed cut from the reed bed and crying to return is the soul cut from God, which is why Chapter 5 heard Rumi begin his

greatest poem by telling us, simply, to listen to it.

*The white robe is the burial shroud, the tall felt
hat is the tombstone, and the turning is a kind
of dying to the self.*

— Dede Efendi and the End of an Era

The tradition reached a late summit in a man who was at once a Mevlevi dervish and the greatest Ottoman composer of his century. Hammamizade Ismail Dede Efendi, born in Istanbul in 1778, was initiated into the Mevlevi order as a young man and grew to command every form of the classical repertoire, from the most exalted ceremonial ayin to the intimate şarkı. He composed at least seven complete Mevlevi ayins, among them the celebrated Ferahfeza ayin of 1839, and his works remain at the core of what students of Ottoman music learn to this day.

Dede Efendi's long life ran straight into the century that would take his world apart. He served at the court of Sultan Mahmud II, who reigned from 1808 to 1839 and set out to Westernize the empire by decree. The most violent stroke fell in 1826. In an event the Ottomans called the Auspicious Incident, Mahmud II destroyed the Janissary corps, and with it abolished the **mehter**, the janissary military band whose thundering shawms, drums, and cymbals had been the sound of Ottoman power for centuries, and whose "alla turca" style had swept European concert halls after the failed siege of Vienna, leaving its mark on Mozart, on Haydn, and on the Turkish march in the finale of Beethoven's Ninth. In the mehter's place Mahmud installed a European style band, the Muzika-i Humayun, and in 1828 he brought in an Italian, Giuseppe Donizetti, the elder brother of the opera composer, to run it. The court that had turned in the sama now marched to European brass.

Dede Efendi felt the ground shift beneath him. The disillusionment attributed to him has survived as a single tired sentence about the new fashion at court: this game, he is said to have remarked, has lost its flavor. In

1846, old and devout, he set out on the pilgrimage to Mecca. He did not decide to remain there, as one persistent account has it. He died there, of cholera, at Mina during the rites of the hajj, and was buried near the holy city. Two of his students, Zekai Dede and the musician remembered as Mutafzade, carried his repertoire home. His death is about as clean an ending as music history offers for the Ottoman classical age in its unbroken form.

The endings kept coming. When the Turkish Republic replaced the empire, it moved hard against the old religious music. Law 677, passed on the thirtieth of November 1925, closed every tekke, lodge, and shrine in the country; the Mevlevi order was outlawed, and the sama went underground, surviving as quiet private practice until the state permitted a public revival at Konya in 1953, first as folklore and only later as something nearer to worship again. In 1934 the reforms reached even the airwaves: from the second of November 1934 to the sixth of September 1936, Turkish state radio banned *alaturka*, the classical Ottoman music, from broadcast altogether, an almost two year silence imposed in the name of building a modern nation's ear.

Persia's classical tradition met its own twentieth century rupture and survived it the same way, by going inward. The Safavid state had fallen in 1736, the Qajars had rebuilt Persian music into the *radif*, and then the Iranian Revolution of 1979 restricted public performance once more, driving the classical art into private homes, into teaching circles, and into the diaspora, precisely the shelters Persian musicians had used ever since Tahmasp dismissed his court. What survived, in Konya and in Tehran alike, was never only a body of tunes. It was a way of standing in relation to something larger than the present moment, carried by people who understood, as this whole book has argued, that music in these traditions is a form of memory.

Hold the two rooms from the opening beside each other one last time. In Tabriz a boy in a red crown founds an empire that will grow so wary of music's power over the soul that it exiles its own musicians. In a *semahane* a man in a shroud colored robe turns until the self dissolves, because his order believes that music's power over the soul is the surest road to God. They are not opposites. They are two answers to the same question, the question this chapter opened with and the poets of Chapter 5 first pressed: what exactly is this force that a sung poem turns loose inside a human being, and what should a civilization do with it? Between Isfahan and Istanbul, for three and a half centuries, the answer was to take it more seriously

than almost anything else, and the sound of that seriousness, when the ney draws its first breath and the turning begins, has not finished reaching us yet.

LISTENING NOTES

♪ **Kudsi Erguner Ensemble, Mevlevi Ayin**

A complete whirling ceremony: Itri's Naat opens it, the ney takes the first breath, and the four selams turn through their usuls, the sound this chapter labors to describe, performed whole.

♪ **Tanburi Cemil Bey, historical recordings, c. 1905 to 1916**

The earliest great document of Ottoman instrumental art, cut to wax a generation before any revival; his tanbur and kemençe taksims are the classical style speaking in its own unguarded voice.

♪ **Niyazi Sayın, ney taksim**

The modern master of the reed Rumi made sacred; an unmeasured solo improvisation that is the ney's own lament of separation, uncomposed and complete.

♪ **Münir Nurettin Selçuk, Ottoman classical song**

The voice that carried the solo art of the gazel and beste into the concert age; listen for how the makam bends around a single sustained word.





EMPIRES OF SOUND — CHAPTER 13

The Floating World: Music of Edo Japan

Japan sealed its ports and turned inward, and instead of silence, the country filled with sound: the shamisen of the pleasure quarters, the koto of the blind masters, the shakuhachi of monks who played instead of praying.

1603 TO 1868

• EDO, KYOTO, OSAKA

浮世

ukiyo · the floating world

Before dawn on a winter morning in the middle of the eighteenth century, the theater district of Edo is already awake. Above the Nakamura-za, the oldest of the licensed playhouses, stands the drum tower whose beating announces that the theater holds the shogun's permission to exist, and by the time the doors open the street is a crush of food sellers, print peddlers, and

playgoers who will stay until dusk. Inside, packed to the rafters, the crowd quiets for the sharpest sound in the city: two hardwood clappers, struck in an accelerating rhythm that tightens the room like a winch. The curtain is drawn. On a platform at the rear of the stage sit singers and shamisen players in matched formal dress. And from a small hidden chamber at stage left, invisible behind a bamboo blind, comes something stranger: soft, huge heartbeats on a great drum. Every person in the theater understands at once. It is snowing.

That snow, falling in sound only, is the invention to hold on to. The hidden musicians of the geza room could make weather, ghosts, rivers, and dawn out of drums, gongs, and flutes, and they did it for audiences of fishmongers and clerks who could not read a note of music but could read every cue. No court asked for this art. No temple required it. It was built for money, in a city of townspeople, by professionals competing for the loudest applause in Japan. Outside the door, the same theater sold programs and actor prints; the whole apparatus, stars, music, advertising, was as frankly commercial as anything on earth in 1750.

It happened inside a locked country. In the 1630s the Tokugawa shogunate issued the edicts remembered as *sakoku*, the closed country, severing most contact with the outside world for fear of Christian missionaries and European guns; the closure held until American warships forced the ports in 1853. The expected result was provincial silence. What actually followed was the opposite, and it is the claim of this chapter: cut off from imports, Japan's new urban classes built the most complete musical culture of their history from the inside, a theater with sound design, a chamber music of blind masters, a flute that was a religion. Instead of silence, the country filled with sound.

— The Closed Country's Open Ears

The seal, first, was never airtight. Dutch and Chinese ships traded at Nagasaki under close watch, Korea kept diplomatic and commercial channels open through the island of Tsushima, and the Ryukyu Kingdom passed goods north through the Satsuma domain, so the closed country was really a country of guarded doors, and one of those doors had already admitted the period's defining instrument. But compared with the port cities of Asia, Japan after the 1630s was a sealed room, and its music developed like an island species, inbreeding toward forms found nowhere else.

The pressure driving that development was a city. Edo, the shogun's capital, grew from a fishing village into a metropolis of around a million people by the early eighteenth century, among the largest cities on earth, and its streets belonged to the *chonin*, the merchants and artisans who ranked at the bottom of the official hierarchy and held most of the actual cash. Samurai stipends were fixed in rice; the money economy belonged to the townspeople, and the townspeople spent it on pleasure. Officially, a samurai's proper music was *utai*, the austere chanting of *noh* texts, the one genre a gentleman could admit to practicing; unofficially, Edo's music teachers took students from every rank. The licensed quarters, the theaters, the teahouses: this world called itself *ukiyo*, the floating world, lifting a Buddhist word for the sad impermanence of existence and flipping it into a boast. Life floats, said the merchants of Edo, so enjoy the ride. The woodblock artists Harunobu and Utamaro printed its portrait, courtesans and actors and music teachers, *shamisen* in hand, and the prints sold on the street for the price of a bowl of noodles.

湯世

The characters of ukiyo, the floating world: a Buddhist lament for impermanence, inverted by the townspeople of Edo into the name of the pleasure quarters and their arts.

Music in this world was a commodity, and nobody apologized for that. Teachers licensed by hereditary school heads sold lessons to merchants' daughters; publishers sold songbooks; theaters sold seats. The historian Gerald Groemer, who has reconstructed the musical street life of Edo, describes a city where blind ballad singers, festival bands, and itinerant chanters worked corners like stalls in a market. A hit song could cross the country in a season, carried by traveling performers and cheap printed lyric sheets. Every art in this chapter was also a business, and the business is part of why the art survived.

— Okuni's Riverbank Theater

Kabuki begins, by every account, with a woman on a dry riverbed. In 1603, on the bed of the Kamo River in Kyoto, a performer named Izumo no Okuni, who styled herself a shrine maiden from Izumo (the claim is part of her legend, not her documentation), staged a new kind of dance drama she called kabuki odori, from kabuku, to tilt, to lean, to deviate. The earliest painted screens show her in a man's clothes with a sword on her shoulder and a Christian rosary around her neck, foreign fashion worn as pure provocation. The show mixed prayers, popular songs, and skits set in teahouses, and it was a sensation. Rival troupes of women formed within a few years, many attached to the brothel districts, and they seized on the newly arrived shamisen almost at once, pairing the young theater with the young instrument. The authorities watched with mounting alarm.

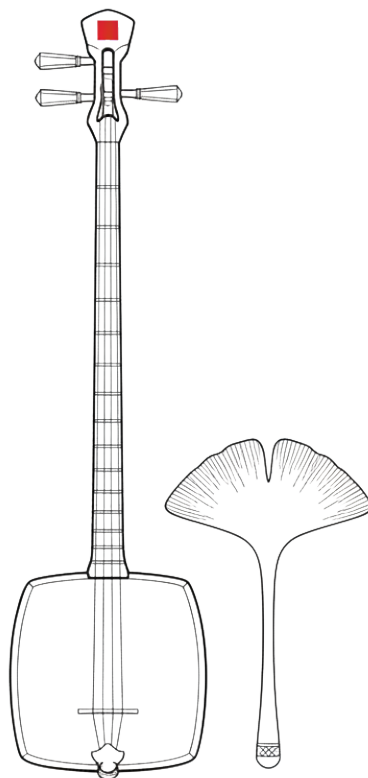
Then the state began editing the cast. In 1629 the shogunate banned women from the professional stage, on the grounds of public morals; troupes of beautiful adolescent boys, the *wakashu*, took their place and generated precisely the same disorder, and in 1652 the boys were banned too. What remained was *yaro kabuki*, adult men only, and out of that constraint came one of the theater's defining arts: the *onnagata*, the male specialist in female roles, whose stylization of femininity became a discipline studied for a lifetime. Great *onnagata* wrote treatises on walking, on the angle of a sleeve, on the pitch of a speaking voice; femininity became a repertoire, studied like a mode. Okuni's provocation had been legislated, step by step, into a classical form. *Noh*, meanwhile, was lifted out of the marketplace altogether and preserved as the shogunate's own ceremonial music, performed for state occasions by samurai order: the old theater became liturgy while the new one took the street.

The puppet theater rose alongside, and for a time ahead. Its narration had the deeper lineage: the genre was called *joruri*, after a medieval romance of Lady Joruri that *biwa* reciters had chanted for generations, and when the chanters traded *biwa* for shamisen and joined forces with puppeteers, a new theater was born. In 1684 the chanter Takemoto Gidayu opened the Takemoto-za in Osaka, and his style of narration, *gidayu-bushi*, a full spectrum roar and whisper delivered beside a heavy shamisen, became so standard that the art itself was later nicknamed for the theater of a successor, *bunraku*. Writing for Gidayu was Chikamatsu Monzaemon, the greatest dramatist of the age; their *Sonezaki Shinju* of 1703, a play about

a real double suicide, filled the house and set the pattern for a century of tragedy. In the puppet theater the chanter and shamisen player are the entire soundtrack: every voice, every emotion, every landscape comes from two seated men, and kabuki borrowed from their intensity ever after.

— The Shamisen Arrives

The instrument underneath all of this had been in the country for barely two generations. Around 1562 a three stringed, snakeskin faced lute called the *sanshin* arrived at the port of Sakai from the Ryukyu Kingdom, itself descended from the Chinese *sanxian*. It fell into the hands of *biwa* players, professional lutenists with centuries of narrative tradition behind them, and they rebuilt it: a longer neck, a larger body faced with cat or dog skin instead of snakeskin, and a great boxwood plectrum, the *bachi*, swung so that it strikes skin and string together. The result, the shamisen, could talk. It could whisper under a love song, crack like a slap in a quarrel scene, and carry over a full theater, and within a century it was the sound of urban Japan. By the 1680s it was everywhere: the puppet houses of Osaka, the parlors of Kyoto, the theaters and licensed quarters of Edo, the lesson books of merchant households.



The shamisen: three strings over a skin faced body, struck with a boxwood bachi that hits skin and string together, while a carved ridge at the neck's top end gives the lowest string its trademark buzz.

The biwa players' fingerprints are all over one detail. On a shamisen, only the two upper strings pass over the nut at the top of the neck; the lowest string rides instead across a shallow carved ridge, grazing it so that every note trails a silvery rattle. This engineered buzz is called **sawari**, the touch, and it is the instrument's soul, a deliberate impurity folded into the tone. It is often confused with the bachi's percussive thwack against the skin, but the two are separate pleasures: the thwack lives in the drumhead, the buzz in the neck. The sidebar unpacks why a culture would build noise into an instrument on purpose.

CONCEPT

Sawari, the Beautiful Buzz

On the biwa, Japan's older lute, the strings do not stop cleanly against the neck: they vibrate against the broad tops of its few high frets, so that every tone carries a controlled rattle. Biwa players prized that halo for centuries, and when their guild remodeled the imported sanshin into the shamisen, they carved the effect directly into the new instrument: a small ridge near the top of the neck, the sawari yama, that the lowest string grazes as it vibrates. Many modern shamisen add a tiny screw mechanism, the azuma sawari, so the buzz can be tuned precisely.

The aesthetic is the opposite of the European luthier's pursuit of a pure, ringing fundamental. The musicologist Kikkawa Eishi argued that Japanese builders treated noise as an ingredient of beauty, engineering complexity into the attack of a tone the way a potter values the roughness of a glaze. A clean tone states a pitch; a sawari tone states a pitch and its shadow.

Readers of Chapter 4 have met this principle before. The jvari bridge of the Indian tanpura enriches each string with a curated buzz of harmonics, invented independently for the same reason: some musical cultures want to hear the edge of the sound, not only its center.

The shamisen promptly speciated. Players classify the instrument by neck, from the slender hosozao of the kabuki dance repertoire to the massive futozao of gidayu narration, with middle grades between, and each theatrical genre grew its own school of narrators and players: alongside gidayu-bushi came tokiwazu, founded in the 1740s, and kiyomoto, born early in the nineteenth century, whose high, erotic lyricism became the sound of dance scenes in the late Edo theater. Tunings were codified too, and their names are still the grammar of the instrument: honchoshi, the home tuning; niagari, with the second string raised, bright and festive; sansagari, with the third string lowered, shaded and inward. A geisha's short kouta, a puppet chanter's death scene, and a kabuki dance finale might all use the same instrument, and no listener in Edo would mistake one style for another.

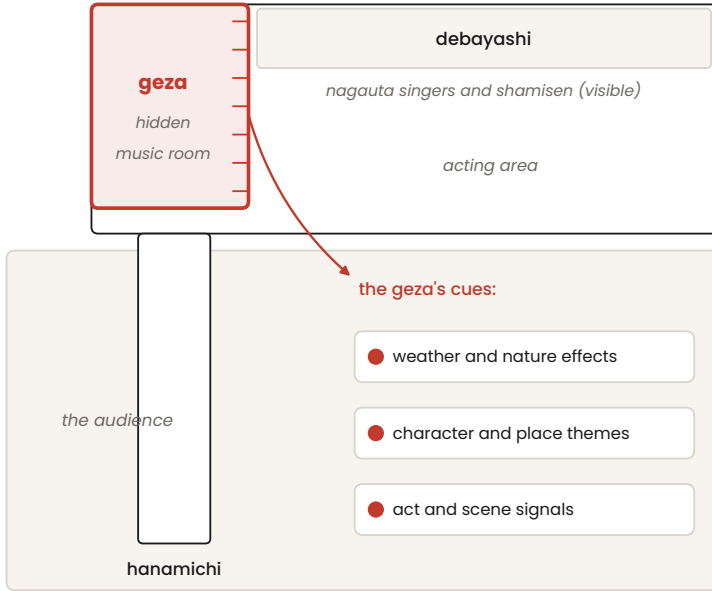
— Sound Design in the Kabuki Theater

Assembled in the theater, these resources became something for which the modern name is exact: sound design. Kabuki took its core ensemble

from the older *noh* stage, the flute and three drums of the *hayashi*, a borrowing of prestige as much as of sound. It set the *shamisen* beside them and built the **nagauta**, the long song, the through composed music of the dance repertoire, performed by ranks of singers and players seated in full view on a stepped platform. *Nagauta* pieces move through named sections at contrasting tempos, and the best of them, the lion dance *Echigo-jishi*, the barrier drama *Kanjincho* of 1840, and *Tsurukame*, composed in 1851 by the tenth *Kineya Rokuzaemon*, are substantial concert works that long ago escaped the theater. A full *nagauta* unfolds through named stations, an *oki* to set the scene, a *michiyuki* for the journey, a *kudoki* of lyric lament, an *odoriji* for the dance, a quickening *chirashi* and closing cadence, and Edo audiences heard the sequence the way opera audiences hear acts. William Malm, whose study of *nagauta* remains the standard in any language, called it the heart of *kabuki* music, and treated it as what it is, a compositional tradition with an architecture, not accompaniment.

The *geza* room ran the other half of the design. Behind its bamboo blind, stage left, the *geza* musicians commanded an armory of drums, gongs, bells, flutes, and the *shamisen*, deployed in hundreds of fixed patterns that the whole audience knew by heart: soft strokes of the great drum for falling snow, rolling patterns for rain and rivers, a specific gong figure for a temple at night, an eerie flute for a ghost's entrance, and named melodies attached to character types, so that a courtesan or a villain was announced by the ears before the eyes. Add the *ki* and *tsuke*, the hardwood clappers that snap the theater to attention and hammer out the stylized poses, and the *kabuki* theater emerges as the figure maps it: sound sources onstage, off-stage, and around the house, cueing emotion with split second precision. The craft is among the most demanding in Japanese music, and it is aimed entirely at people who will never see the players.

KABUKI STAGE: WHERE THE MUSIC SITS



The kabuki theater as a sound design: nagauta singers and shamisen in view on the platform, the noh derived hayashi below, the hidden geza room making weather and ghosts at stage left, and the ki clappers snapping the house to attention.

The most demanding musical craft in the theater belonged to players the audience would never see.

— The Blind Masters: Yatsushashi and the Koto

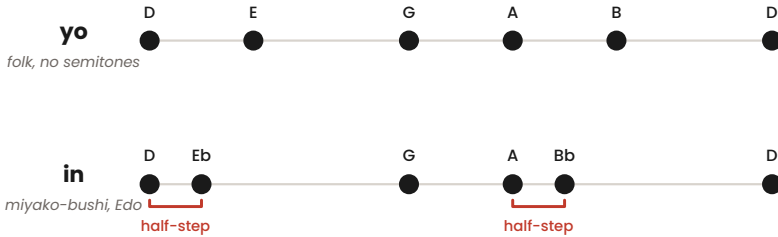
Away from the theaters, the most refined music of the period was controlled by a guild of blind men. The Todo-za, chartered and protected

by the shogunate, held a legal monopoly for blind professionals over koto and shamisen teaching, over the old biwa narration of the Heike wars, and over trades like acupuncture and moneylending. Its pedigree ran deep: the guild's founding figures included Akashi Kakuichi, the fourteenth century master whose recited text of the Tale of the Heike became the standard, so the men who would remake the koto stood in a lineage older than the shogunate that protected them. The guild's internal ladder ran through the ranks of zato, koto, and betto up to kengyo, the highest title, purchased and earned over a lifetime. The word trips up modern readers, who meet Yatsuhashi Kengyo and assume a family name; it is closer to Yatsuhashi, Grand Master. Blind women worked outside the guild's privileges as goze, itinerant singers who walked circuits between villages with shamisen on their backs, an art Groemer has documented across three centuries. For both, music was that rare thing in a hereditary society: a career open to talent.

Yatsuhashi Kengyo, born in 1614, is the reason the koto belongs to this chapter. He began as a shamisen player and then took up the thirteen stringed zither, which lived at that time in two worlds only: the gagaku ensemble of Chapter 3, and Tsukushi-goto, a dignified song repertoire descended from court music and guarded by monks and gentlemen amateurs who did not teach guild professionals. The account handed down in koto lineages says a renegade student of that school taught him anyway. What is certain is what Yatsuhashi did next, and its scale: he took a court instrument and retuned it to the scale of the streets.

That scale is the in scale, also called miyako-bushi, the sound of Edo popular song: five notes to the octave with two aching semitone steps, where the older yo scale of folk and festival music has none. As the figure shows, the two pentatonic frames share a skeleton and differ in two decisive tones, and the difference is the entire emotional climate of Edo music. Hum E, F, A, B, C and you have the in scale's shape; the two half steps, E to F and B to C, are where the ache lives. Yatsuhashi's masterstroke was hira-joshi, a new base tuning that lays the in scale directly across the koto's thirteen strings, so that the instrument's open resonance itself became urban, melancholy, modern. Nearly every koto piece since begins, physically, from his tuning.

TWO JAPANESE SCALES: YO AND IN



The two half-steps give Edo music its shadowed color.

HIRA-JOSHI TUNING



Yatsuhashi's tuning of the in scale onto thirteen strings.

The yo scale of festival and folk song beside the in scale of the pleasure quarters: two shared pentatonic skeletons, two semitone steps of difference, and Yatsuhashi's hira-joshi tuning laying the in scale across the koto's thirteen strings.

On that foundation he built a repertoire: kumiuta song cycles, beginning with Fuki, and the danmono, stepped instrumental variation sets of which the most famous is Rokudan no Shirabe, the piece in six sections that koto students still learn early and masters still play last. Tradition credits Rokudan to Yatsuhashi himself; no document from his lifetime confirms it, so call the attribution what it is, a legend attached to a founder. Japanese histories call Yatsuhashi the father of modern koto music, and for once the honorific is plain fact. He died in 1685, and the lineages that descend from him organized the art for the rest of the period: the Ikuta school, founded in 1695, which wove the koto tightly into the shamisen chamber music of the Kansai cities, and the Yamada school of late eighteenth century Edo, which pulled the voice forward and composed for it. The two schools remain the twin pillars of koto playing today.

— Chamber Music of the Floating World

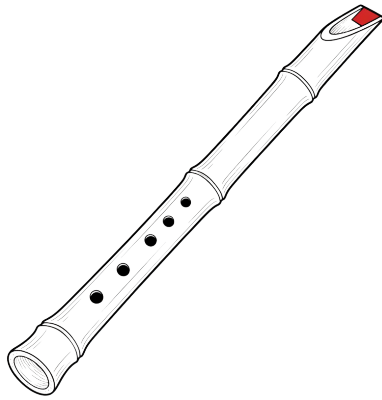
The room where those threads met was small, lamplit, and private. Its core repertoire was **jiuta**, the songs of the country, the shamisen chamber music of Kyoto and Osaka: slow, inward song built on classical poetry, seasonal images, the sadness of parting, with long instrumental interludes, the *tegoto*, where the players converse without words. Listen to *Zangetsu*, composed as a memorial by the Osaka master Minezaki Koto late in the eighteenth century, and you hear the genre whole: a grieving text, then a *tegoto* in which the instruments mourn more precisely than words could. *Jiuta* merged with the *koto* repertoire until professionals carried both, and the blended practice produced **sankyoku**, the three instrument ensemble that is Edo Japan's chamber music: *koto*, shamisen, and a third voice, which through most of the period was the *kokyu*, a small bowed fiddle, the one bowed string the tradition possessed. Only in the modern era did the *shakuhachi* take the *kokyu*'s chair and become the trio's familiar third; the settled *sankyoku* of today's concert stage is a later consolidation of Edo materials. Listen to a fine *sankyoku* performance and notice that no instrument accompanies another: three simultaneous versions of the melody slide against each other, offset and ornamented differently, the same heterophonic principle the *gagaku* ensemble of Chapter 3 applies at court scale, here in a six mat room.

Around the professionals spread an enormous amateur culture. A merchant's daughter learned *koto* as an accomplishment; a clerk took shamisen lessons from a licensed teacher; the geisha of the quarters polished *kouta* and *hauta*, song miniatures a minute or two long, into an art of pure timing. Everything was codified, licensed, and written down, in tablatures and teaching lineages controlled by the *iemoto*, the hereditary school heads who granted names and collected fees. The period's paradox is on full display here: the culture that prized the untranslatable, the perfectly placed silence, also generated certificates, ranks, and printed manuals for it. It was a society that loved both the spontaneous haiku poem and the elaborate formal ceremony, and its music held the two impulses in one hand.

— Blowing Zen

The strangest musical institution of the period wore a basket. Monks of the Fuke sect of Zen, the *komuso*, monks of emptiness, walked the roads of Japan with woven hoods covering their faces entirely, playing the

shakuhachi, the end blown bamboo flute, as their sole religious discipline. They called the practice *suizen*, blowing Zen: not performance but meditation with witnesses. The sect ran its affairs from a handful of temples, Kyoto's Myoanji the most famous, and its charter traced its lineage to a legendary Tang dynasty eccentric named Puhua, a genealogy scholars have shown was fabricated in Edo period documents to secure the guild's privileges, which included, usefully for the many former samurai in its ranks, the legal right to travel and to hide one's face. The paperwork was fiction. The music was not.



The shakuhachi: a notched, end blown length of thick bamboo with five holes, whose player bends pitch and color by breath and by tilting the head, from a whisper of air to a cry.

The komuso repertoire, **honkyoku**, the original pieces, is solo, unmetered, and unlike anything else in this book. Pieces such as *Kokuu* and *Mukaiji* are not tunes to be reproduced but frameworks for breath, for the exploration of a single pitch's inner life, a tone swelling from breath noise to full voice and sinking back, a phrase followed by a silence that belongs to the piece. Listen to *Kokuu* with the lights off: the first minute is barely more than breath finding its pitch, and by the third minute breath has become architecture. Here the aesthetics of the period reach their purest statement in **ma**, the charged interval between events. *Ma* is a technical practice, and the honkyoku player shapes the gap after a phrase as deliberately as the phrase itself; in Japanese music, what is not played is as deliberate as what is. The related ideals of *wabi* and *sabi*, the beauty of the imperfect and the

worn, live in the shakuhachi's breathy, grainy tone, never fully controllable, prized precisely for that. In the eighteenth century the master Kurosawa Kinko, born in 1710, collected and fixed thirty six honkyoku for what became the Kinko school, one more instance of the period writing down its own ineffability.

*In Japanese music, what is not played is as
deliberate as what is.*

— What Meiji Nearly Destroyed

The floating world ended on a government schedule. American ships forced the harbors open in 1853; the shogunate fell in 1868; and the new Meiji state, remaking Japan at speed, had no patience for Edo's musical institutions. In 1871 it abolished the Fuke sect outright, suspicious of masked wanderers with samurai pasts, and the komuso's begging licenses died with it; honkyoku survived only because players like the heirs of Kinko's school recast the shakuhachi as a secular concert instrument. The same year the state dissolved the Todo-za, stripping the blind guild of the monopolies that had funded the koto tradition for two and a half centuries. Blind masters kept teaching, now unprotected in an open market, and it was in these years that the shakuhachi settled into the sankyoku ensemble as the kokyu faded. Western music arrived with its own ministry: Chapter 17 follows Izawa Shuji and the school songbooks that put staff notation in every classroom, and Chapter 18 watches Japan's music meet the world it had been closed to.

Yet consider what endured, and how much. Kabuki still runs on nagauta, geza cues, and the snap of the ki. Rokudan is still among the first pieces a koto student learns, in Yatsunashi's tuning, in schools founded in 1695 and the late eighteenth century. The honkyoku are played from Tokyo to Berlin, and the sawari buzz that Edo carved into its instruments is studied by acousticians. The old world even seeded its own successor: Michio Miyagi, born in 1894, blind like the masters before him but guildless, would carry the koto from this inheritance onto gramophone records,

radio, and the world's concert stages. The locked country's music proved more durable than the locks. A society of townspeople, denied the world, had turned entirely inward and found there a depth of musical invention that the open world might never have produced; when the doors finally opened, that invention walked out through them, and it has never stopped traveling.

LISTENING NOTES

♪ **Goro Yamaguchi, A Bell Ringing in the Empty Sky**

Kinko school honkyoku from the master NASA later chose for the Voyager Golden Record: one breath at a time, with the silences played as carefully as the tones.

♪ **Michio Miyagi, Rokudan no Shirabe**

The great danmono in hira-joshi tuning, played by the twentieth century's most celebrated blind koto master: six sections that quicken almost imperceptibly, Yatsushashi's world in ten minutes.

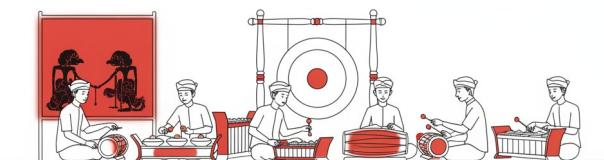
♪ **Ensemble Nipponia, Japan: Kabuki and Other Traditional Music**

Nagauta and geza pieces lifted out of the theater; listen for how drum patterns and offstage cues paint weather and character without a single word of scenery.

♪ **Ensemble Nipponia, Japan: Traditional Vocal and Instrumental Music**

Chamber classics for shakuhachi, biwa, koto, and shamisen; hear the sawari halo around the plucked tones, the engineered buzz this chapter's sidebar describes.





EMPIRES OF SOUND — CHAPTER 14

Bronze and Breath: Gamelan and the Music of Southeast Asia

A gamelan is not a set of instruments. It is a single being with a name, a birthday, and a temper, and no two in the world are tuned alike. In Java and Bali, music is something a village does together.

C. 800 TO THE PRESENT

• JAVA, BALI, BANGKOK, PHNOM PENH, MANDALAY

ဂမ္ဗီယာ

gamelan · struck with the
hammer

A little before midnight, in a walled pavilion in Solo in central Java, some forty musicians sit cross legged on the floor among their instruments, and the sound they are making has no edges. It began an hour ago, and nobody in the room could name the instant it started, because a gamelan does not begin the way an orchestra begins. There is no downbeat, no conductor's

arm. Instead a shimmer gathers, a wash of bronze overtones that seems to come from the air itself rather than from any single instrument, and then, slow and enormous, the great gong at the back of the pavilion speaks once, and the whole texture settles onto it like weight finding its foundation.

The players are not performing at an audience. Some of them are neighbors who farm the same fields; the eldest has sat at his instrument for sixty years. Behind them, a stretched white screen glows with the light of an oil lamp, and a puppeteer is beginning to move leather figures across it. What is happening in this courtyard is not a concert in the sense a European concert hall would recognize. It is closer to a rite the village performs on itself, and the instruments are as much a part of the community as the people striking them. The set has a name, the way a person or a heirloom kris has a name. It was born on a particular day, in a particular foundry, and its keepers speak of its temper.

This chapter follows one conviction across an arc of islands and river valleys, from Java to Bali to the mainland courts of Bangkok, Phnom Penh, and Mandalay: that music here is built as a single body, from bronze and breath, and organized less by melody than by time, by cycles that turn and close and turn again. The traditions differ, and their differences are real, but they share an orientation. Ensemble stands above soloist. The instruments are cast, not bought off a shelf. And the deepest structure of the music is architectural, a matter of when the largest gong will sound, and when the cycle will come home.

— The Shimmer

The word gamelan comes from the Javanese gamel, a mallet or hammer used to strike metal. A **gamelan** is not one instrument but an ensemble of tuned bronze, forged and tuned together as a unit, and the art of playing it has its own name, karawitan, the refinement of sound. The prestige metal is a bronze of roughly ten parts copper to three of tin, hammered and cooled and shaved by a smith who is listening as much as looking. Cheaper village sets use iron or brass, but the courts want bronze, because bronze rings with the particular clustered overtones that produce the shimmer, the sense that the sound is standing slightly ahead of the instruments in the air.

That shimmer sits on top of a very old technology. Long before the gong chime ensembles of Java took their present form, Southeast Asia was already a civilization of bronze. The Dong Son culture of what is now north-

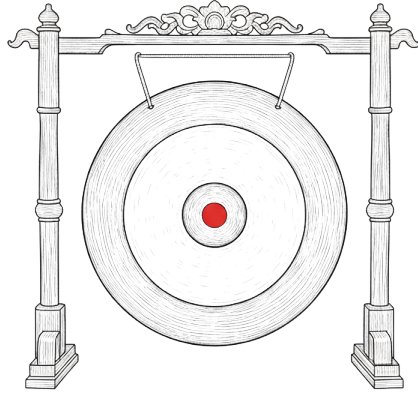
ern Vietnam cast enormous ceremonial kettledrums from around five hundred years before the common era, their tympana crowded with cast images of processions and musicians, and copies and descendants of those drums turn up across the islands as far as eastern Indonesia. The knowledge of casting large tuned bronze objects, and of treating them as objects of power, runs underneath the whole region. When Chapter 3 followed court music up the sea lanes to the Tang capital and onward to Nara, the traffic was running south to north as well as the other way: in the year 802 the Pyu kingdom of what is now Myanmar sent some thirty five musicians to perform for the emperor at Chang'an, and Tang chroniclers wrote their instruments down.

For the modern bronze gamelan itself, the earliest hard evidence is carved into stone. The great Buddhist monument of Borobudur in central Java, built by the Sailendra dynasty in the eighth and ninth centuries, shows drums, flutes, plucked lutes, and bells in its bas reliefs. These are not yet the gong chime ensemble a listener would recognize today, and scholars are careful about the gap; the gong centered gamelan consolidated later. But the reliefs anchor the practice of ensemble music making in Java to roughly the year 800, which is where this chapter's clock starts. Javanese myth reaches back further still, crediting the god king Sang Hyang Guru with forging the first gong to summon the gods to his mountain. That is a origin story, told for its meaning rather than its history, and it should be labeled as one. What it gets right is the intuition that the gong came first, and that everything else is built around it.

— One Instrument With Twenty Bodies

Open up the ensemble and it divides into families, each with its own duty. At the base are the hanging and kettle gongs. The gong ageng, the great gong, is the largest and deepest, often eighty to a hundred centimeters across, and it sounds only at the most important structural moments, closing and opening the longest cycles. Smaller hanging gongs, the kempul, and the horizontal kettle gongs called kenong divide the span inside those long cycles, and the small kethuk and kempyang tick off the finest regular subdivisions. Above the gongs come the metallophones: the saron family, thick bronze bars over a trough resonator, struck with a wooden or horn mallet; the slenthem, thinner bars over tuned tubes; the gender, thin keys suspended over individual bamboo resonators and played with two

padded disks. The bonang, rows of small kettle gongs resting on cords in a wooden frame, adds another layer. Around the bronze move the softer voices: the rebab, a two string bowed spike fiddle that leads the gentle ensemble; the suling, a ring flute of bamboo; the wooden xylophone gambang; the zithers; and the singers, above all the pesindhen, the female soloist whose line floats over the metal.



The gong ageng, the great hanging gong of a Javanese gamelan: bronze roughly a meter across, struck only to open and close the longest cycles, and treated less as equipment than as an honored member of the ensemble.

These instruments are not interchangeable, and that is the first thing to understand about a gamelan. You cannot lift a bronze bar out of one set to patch a broken one in another, because the two sets were tuned separately and by ear, and the transplanted key will sound wrong against its neighbors. A gamelan is whole or it is incomplete. This is more than an acoustic fact. In the older Javanese understanding, the ensemble is a unified being, and its instruments are treated accordingly. The great gongs are heirlooms; they are given names, sometimes thought to house a spiritual presence, and offerings of flowers and incense are made to them. They are oiled, wrapped in cloth when not in use, and never stepped over.

A gamelan is whole or it is incomplete.

— The Skeleton and the Flowers

What are all these instruments actually playing? Not, mostly, different tunes. They are playing different densities of the same tune. At the center of a piece is a skeletal melody called the **balungan**, the “frame” or “bones,” carried in plain long notes by the saron and slenthem. Everything else is elaboration, and the elaboration is layered by speed. The slower, lower instruments play few notes and mark structure; the faster, higher instruments spin many notes into the spaces between. A Javanese image explains it better than any technical term: the balungan is the stem, and the elaborating parts are the leaves and blossoms, all growing from one plant but each taking its own shape. The scholars who introduced this music to Western universities, Jaap Kunst, who spent decades in the Indies, and later Mantle Hood and the Javanese musician and theorist Sumarsam, all reached for the same point, that what sounds like a single dense curtain of bronze is in fact a stack of simultaneous individual decisions, each constrained by an instrument’s idiom and each leaving room for judgment.

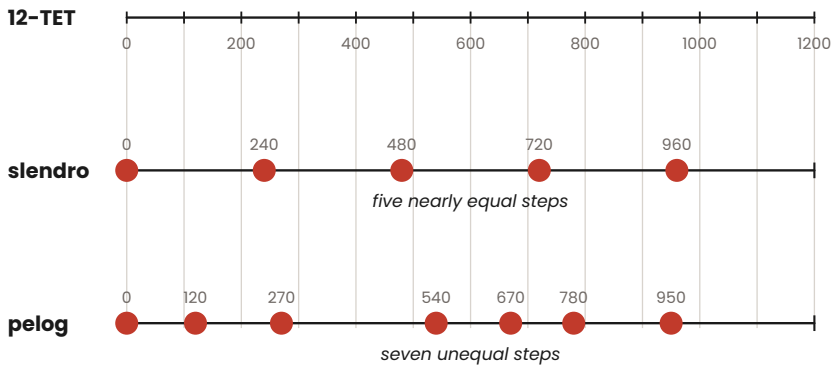
The degree of elaboration is itself a controlled variable, and it has a name: **irama**. Irama is the density level, the ratio between the plain balungan and the busiest elaborating parts. As the drummer slows the underlying pulse, the elaborating instruments do not slow with it; instead they subdivide further, packing two, then four, then eight, then sixteen notes into the span of a single balungan beat. Javanese theory counts roughly five irama levels, and moving between them is one of the great expressive resources of the music, a way of making the surface teem while the bones hold still. The instrument that governs all of this is the *kendang*, the drum, or rather the pair of drums played by one seated musician. The drummer is the ensemble’s true leader, steering tempo, cueing the shifts of irama, and signaling every transition and ending with strokes the other players feel rather than watch.

— Two Tunings, No Standard

Now the hardest and most beautiful fact. Javanese gamelan uses two tuning systems, and neither one matches any fixed standard anywhere. The first, *slendro*, divides the octave into five steps that are roughly, but only roughly, equal; the average step is around two hundred forty cents, though measured intervals wander between about two hundred ten and two hundred seventy. The second, *pelog*, divides the octave into seven markedly

unequal steps, some as narrow as a European half step and some far wider, ranging across roughly ninety to three hundred cents. In practice a pelog piece uses a five note subset of the seven, chosen to fit its mode; the full seven are almost never sounded in one piece. A complete court gamelan is really two gamelans in one, a slendro set and a pelog set, kept apart and played for different repertoires.

SLENDRO AND PELOG AGAINST EQUAL TEMPERAMENT



Measurements vary by gamelan; no two are tuned alike (embat).

Slendro and pelog measured against the equal tempered piano: slendro's five near equal steps of about two hundred forty cents, pelog's seven strikingly uneven ones, and the crucial truth that these are one gamelan's tuning, not a standard any other set will share.

Here is the part that unsettles a musician trained on a piano. There is no absolute pitch and no shared tuning. When Kunst, and later the Yogyakarta researchers Surjodiningrat, Sudarjana, and Susanto, actually measured court gamelans, Surjodiningrat's 1972 study taking the tunings of more than thirty sets, they found that no two were alike. Each gamelan is tuned as a unit by its maker, who chooses the exact size of every interval, and connoisseurs can identify a particular set by its intonation the way one

might recognize a voice. That signature has a name: **embat**, the individual tuning personality of a gamelan. To ask which tuning is “correct” is to misunderstand the question. The tuning is the instrument’s character, and its slight divergence from every other gamelan is not a defect to be corrected but the thing that makes it itself.

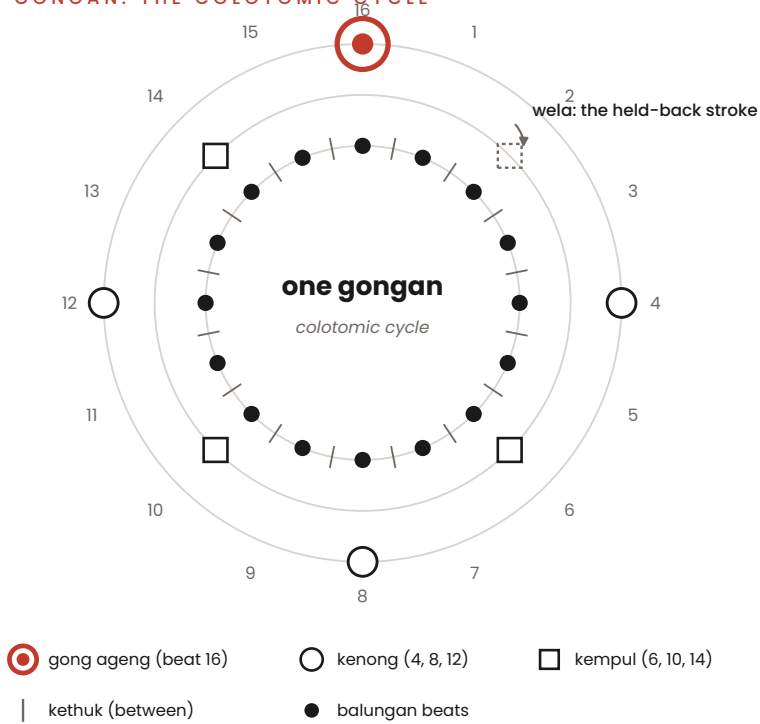
Within each tuning system, the music is organized by **pathet**, a modal framework something like raga in India or maqam in the Arab world, though the comparison should not be pressed. There are three principal pathet in slendro and three in pelog, each centered on a particular pitch that behaves as a tonal home, each carrying its own stock of characteristic phrases and cadences. Pathet tells a player which notes to lean on, which to pass through, and how a phrase should come to rest. And in the great performance context of Javanese music, the shadow play, pathet does something more remarkable still: it tells time.

— The Cycle: Music as Architecture in Time

A gamelan piece is not shaped like a European melody, with a beginning that develops toward an end. It is shaped like a wheel. The music unfolds as a repeating cycle, a gongan, and the cycle is defined not by its tune but by its punctuation, by which gong sounds where. The largest gong, the gong ageng, marks the boundary of the whole cycle, sounding as it closes and the next begins. Inside that span the kenong divides the cycle into equal sections; the kempul subdivides those; the little kethuk and kempyang fill in the finest regular pulse. The result is a nested hierarchy of gong strokes, from the rarest and deepest to the most frequent and highest, and that hierarchy is the form of the piece.

Jaap Kunst gave this structure the name it still carries: **colotomy**, from Greek roots meaning “cutting by members,” the punctuation of musical time by gongs of graded structural weight. Colotomy is the key that unlocks Southeast Asian music. Once you can hear it, once your ear learns to wait for the gong ageng and to feel the kenong dividing the space before it, the shimmering curtain resolves into a clear architecture, and you know at every instant where you are inside the turning wheel. The elaborating parts and the changing irama play across this frame like light across a building’s structure, but the frame itself is fixed and legible.

ONE GONGAN: THE COLOTOMIC CYCLE



The deepest sound arrives last and completes the cycle.

A colotomic cycle, or gongan, drawn as a wheel: the gong ageng closing the whole revolution, the kenong quartering it, the kempul and kethuk marking finer divisions, so that the form of the piece is the pattern of its gongs.

As the figure shows, to read the wheel is to read the piece. This is what people mean when they say gamelan music is cyclical rather than linear, and it is why the tradition can sustain a single gendhing for twenty minutes without a listener losing the thread. The thread is not a melody to be remembered. It is a cycle to be inhabited.

— Night Music: Wayang and the Dalang

The setting where all of this comes fully alive is wayang kulit, the shadow puppet theater, and it may be the central art of Javanese civilization. One

person, the *dalang*, sits behind a backlit screen and runs the entire performance. He manipulates the flat leather puppets so their shadows fall on the cloth for the audience on the far side, he narrates, he speaks and sings every character in every voice, and he directs the full gamelan behind him with signals rapped out by his foot and a small mallet on the puppet chest. A performance runs from after dark until dawn. The stories come from the Mahabharata and the Ramayana, reshaped by a thousand years of Javanese retelling that added local characters and layers of philosophy and comedy. The beloved clown servants Semar and his sons are Javanese inventions grafted onto the Sanskrit epics, and much of the moral weight of a night's performance rests on them.

Across that long night, the three *slendro* *pathet* are played in a fixed order that maps to the hours. *Pathet nem* carries the early evening, *pathet sanga* the deep middle of the night, *pathet manyura* the stretch that climbs toward dawn. A knowing listener can walk into the pavilion at three in the morning and know, from the mode alone, roughly what hour it is and how far the drama has progressed. The music does not merely accompany the night; it keeps the night's clock.

*The music does not describe the night. It is the
clock the night is kept by.*

The value the world has placed on this art is now official as well as local. Wayang was proclaimed a masterpiece of humanity's intangible heritage in 2003. But its real preservation happens where it always has, in the training of *dalangs* and the tuning of sets, in villages that still keep the whole night.

--- **Bali's Bright Explosion**

Sail east across the narrow strait to Bali, and the same bronze families produce a startlingly different music. Bali kept its Hindu culture when Java turned largely to Islam, and its gamelan stayed woven into temple festivals and village life through clubs called *sekaha* rather than royal courts. The sound is faster, louder, and more sharply cut. Two techniques account for

much of the difference. The first is *kotekan*, in which a single rapid melodic line is split between two players who interlock their notes so tightly that the ear hears one impossibly quick stream. The second is the source of Bali's characteristic glitter, and it is engineered on purpose, described in the sidebar: the instruments are cast and tuned in pairs, one slightly higher than the other, so that every struck note beats against its twin.

CONCEPT

Ombak: the Engineered Wave

In Java, each pitch is one instrument. In Bali, it is two. The Balinese tune their bronze in pairs, a lower *pengumbang* and a higher *pengisep*, deliberately offset by a few cycles per second. When both are struck together, the tiny difference in their frequencies produces an audible beating, a pulse of roughly five to eight times a second, and that pulse is the *ombak*, the "wave." It is what makes Balinese gamelan shimmer and throb where Javanese gamelan, with its single instruments, glows more evenly.

The most famous Balinese style rides this wave to its limit. Gong *kebyar*, whose name is onomatopoeic, the flare of a struck match, emerged in the north of the island, around Buleleng, in the years just before the First World War. Its first documented public appearance was at a gamelan competition in the village of Jagaraga in December 1915. *Kebyar* broke with the stately older styles in favor of sudden dynamic explosions, abrupt stops, and virtuosic unison passages, and across the twentieth century it swept the island. The American composer Colin McPhee, who lived in Bali through the 1930s, and later the scholar Michael Tenzer documented its rise.

One Balinese genre is regularly misdescribed, and it is worth setting straight. *Kecak*, the "monkey chant," in which scores of men sit in concentric rings and interlock the syllable "cak" into a dense rhythmic roar while a Ramayana drama unfolds at the center, is often sold as an ancient rite. It is not. It was created around 1930 to 1932, when the German painter Walter Spies, then living in Bali, worked with the dancer I Wayan Limbak of the village of Bedulu to stage the interlocking male chorus of the older *sanghyang* trance ritual as a theatrical Ramayana spectacle. It uses no gamelan at all, only voices, and it was shaped in significant part for the growing audience of foreign visitors; Limbak later toured it abroad. *Kecak* is a real and powerful art, and it sits on a genuinely old ritual root, but it is a creation of the 1930s, and honest history says so. The older dance dramas beside which it

is often placed, the refined legong and the mask drama of the barong, have deeper local histories.

The influence ran the other way too, though modestly. When a gamelan played at the Paris exposition of 1889, a young Claude Debussy heard it and something in his sense of texture and time began to shift, but that is a story for Chapter 18. Later American composers engaged more directly; McPhee wrote music shaped by what he heard, and Lou Harrison built gamelans of his own on the far side of the Pacific.

— The Mainland Courts

North and west of the islands, the mainland kingdoms built their own bronze and bamboo ensembles, related in spirit and unrelated in detail. Thailand's classical ensemble is the piphat, a hard mallet orchestra led by the ranat ek, a trough xylophone whose keys race in bright cascades, supported by the lower ranat thun, the gong circle khong wong yai that carries the core melody, the quadruple reed oboe pi nai with its penetrating cry, the sacred barrel drum taphon, and the small cymbals ching that click off the cycle. Thai theory describes a seven tone scale with nearly equal steps, close to dividing the octave into seven equal parts, though David Morton's measurements show that real ensembles deviate from perfect equidistance, so the equal seven tone octave is best treated as an ideal the tuners approach rather than a rule they obey. And one term needs correcting from the way it is often loosely used: *thang* in Thai music refers primarily to pitch level, the transposition of a melody to one of the system's seven levels, or to an instrument's particular idiom or a master's own realization of a piece. It is not a set of raga like emotional modes; the affective reading is a mistranslation. Thai classical music serves the royal court, Buddhist ceremony, and the masked dance drama khon that stages the Ramakien, and it opens with the wai khru, the rite by which students honor their teachers and the lineage before they are permitted to play.

FIVE BRONZE-AND-DRUM ENSEMBLES COMPARED

	Javanese gamelan	Balinese gong kebyar	Thai piphat	Khmer pinpeat	Burmese hsaing waing
core melody carrier	saron balungan	gangsa figuration	ranat ek xylophone	roneat xylophone	pat waing drum circle
gong punctuation	gong ageng cycle	gong + kempur	khong wong gong circle	kong von gong circle	maung zaing gong rack
drum leadership	kendang	kendang pair	taphon	sampho	pat waing leader
typical context	court and wayang	temple festival	court and theater	court and ritual	theater and ceremony

The bronze belt of Southeast Asia at a glance: Java and Bali's gamelan, Thailand's piphat, Cambodia's pinpeat, Myanmar's hsaing waing, and the Philippine kulintang, compared by lead instruments, tuning, and theatrical home.

As the matrix lays out, Cambodia's court ensemble, the pinpeat, is the Khmer sibling of the Thai piphat, with cognate xylophones, gong circles, the quadruple reed sralai, and the leading barrel drum sampho; the bas reliefs of Angkor Wat and the Bayon, carved in the twelfth and thirteenth centuries, show court musicians and dancers and confirm how deep this tradition runs. Its recent history is the darkest in this chapter. Under the Khmer Rouge, from 1975 to 1979, the regime murdered the educated and the artists together, and by most estimates around nine in ten of Cambodia's master musicians died or fled. The rebuilding that began after 1979, carried out by the survivors and by organizations such as Cambodian Living Arts working with the few elders who remained, is one of the hardest and most moving acts of cultural recovery anywhere, and it is still under way; the Royal Ballet of Cambodia, which the pinpeat accompanies, was recognized by UNESCO in 2003. Vietnam's counterpart tradition, nha

nhac, the “elegant music” of the Nguyen dynasty court at Hue, with roots in earlier ceremonial models, was likewise recognized in 2003, the country’s first such listing, after decades of near collapse in the twentieth century.

Farther north, Myanmar built something with no parallel elsewhere. The hsaing waing is an outdoor ensemble centered on the pat waing, a player seated inside a circle of twenty one tuned drums, playing melody on drumskin, ringed by a gong circle, a shawm, and bell and clapper time-keepers. Beside it survives the saung gauk, the boat shaped arched harp whose ancestry traces back through the Pyu to the arched harps of India, and which is the only Asian harp tradition to have played continuously into the present. Burmese court music lost its patronage when Britain annexed the kingdom; the final war came in November 1885 and formal annexation followed on the first of January 1886, and what survived did so in popular and theatrical settings and in the memory of musicians trained under the old system. And the bronze belt reaches into the Philippines as well, in a form the Spanish colonizers of the northern islands never displaced: the kulintang, a row of small tuned gongs played by the Maranao and Maguin-danao peoples of the south, a gong chime cousin of the gamelan that ties the Philippines back into the bronze world of its neighbors even as its northern islands turned toward the guitar, a story Chapter 16 takes up.

What connects this whole arc, from a Solo courtyard to a Mindanao gong row, is not one shared scale or one shared repertoire. It is a shared way of thinking about sound. Ensemble over soloist. Cycle over line. Bronze cast and named and cared for as something more than equipment. The great gongs of a Javanese gamelan are heirlooms that are woken when they are played, and the music that results is understood as a collaboration between the musicians and the instruments, between the living and what the bronze carries within it. In December 2021, UNESCO added the gamelan to its list of humanity’s intangible heritage, formal recognition of what the villages of Java and Bali have always known. But the recognition that matters is the nightly one, in the pavilions where the cycle turns and the great gong comes home, a tradition that Chapter 24 will find fully alive in the present, still doing the work that the reliefs of Borobudur first recorded twelve hundred years ago.

LISTENING NOTES

♪ **Various musicians of the Paku Alaman palace, Java: Court Gamelan (Nonesuch Explorer Series)**

Sit inside a slow central Javanese gendhing and follow the gong ageng closing each cycle while the bonang and gender flower over the plain balungan; the clearest way to hear colotomy at work.

♪ **Gamelan Gong Kebyar of Belaluan, Bali 1928, Volume I (Arbiter of Cultural Traditions)**

The oldest recordings of Balinese kebyar, made in the year the style was conquering the island; hear the explosive unisons and the beating ombak of the paired detuned bronze.

♪ **Golden Rain: Balinese Gamelan Music / Ketjak: The Ramayana Monkey Chant (Nonesuch Explorer Series)**

The kecak with no instruments at all, only a ring of men splitting the syllable "cak" into interlocking parts, and a reminder that this powerful sound is a creation of the 1930s.

♪ **Prasit Thawon Ensemble, Thai Classical Music (Nimbus)**

A full piphat; listen for the ranat ek xylophone racing in bright cascades over the khong wong gong circle while the pi nai reed cuts through and the ching marks the cycle.





EMPIRES OF SOUND — CHAPTER 15

Court and Countryside: Music of Joseon Korea

At court, a single note could take ten seconds to bloom, because Confucian heaven is not in a hurry. In the villages, a lone singer and a drummer could hold an audience for six hours. Korea perfected both extremes.

1392 TO 1910

• HANYANG (SEOUL), JEOLLA PROVINCE

정간보

jeongganbo · the grid that
holds time

On the first Sunday of May, in the wooded heart of Seoul, the oldest royal shrine in East Asia opens its gates and fills with sound. Jongmyo houses the spirit tablets of the kings and queens of the Joseon dynasty, and once a year their descendants, robed in crimson, walk the raised stone spirit path to feed the ancestors music. Two orchestras face each other across the courtyard: the deungga on the terrace beside the shrine hall, the heonga on

the flagstones below. Between them stand sixty four dancers in eight rows of eight, holding flutes and pheasant feathers for the civil dances, wooden swords and spears for the military ones. A wooden clapper cracks. A bell tolls. Then the first tone of Botaepyeong climbs out of the double reeds and simply keeps going, swelling, bending at its crest, thinning, for the better part of ten seconds, until the next tone arrives to relieve it.

Nothing in this music hesitates. It is slow in a way that seems to operate at a different metabolic rate than most music, and the slowness is not a mood but a doctrine. Confucian ritual is the art of doing correct things at correct speeds, and heaven, the rite assumes, is never in a hurry. What you are hearing was fixed in essentially its present shape in 1464, and it has been performed at this shrine, war and occupation permitting, ever since. Listen for one minute and you understand that this is not a concert. It is a conversation with the dead, held at the tempo the dead prefer.

Now travel three hundred kilometers south and imagine a market town in Jeolla Province on a festival day two centuries ago. Under an awning stands a single singer with a folding fan; beside the singer sits a drummer with a barrel drum. For six hours, sometimes longer, the singer will become a grieving father, a corrupt magistrate, a talking rabbit, a storm at sea, the voice torn open and rebuilt until it sounds less like singing than like weather. The crowd does not merely watch. It answers, shouting encouragement at every bend in the story.

These are the two poles of the soundworld that Joseon Korea built between its founding in 1392 and its annexation by Japan in 1910, and the claim of this chapter is that they are not opposites. Court stillness and countryside fire were two applications of a single conviction, held from the throne hall to the shaman's yard: sound does real work on human beings, and the work deserves engineering of the highest order. Korea perfected both extremes, and it kept both.

— Music at a Different Metabolism

The Joseon dynasty was, in its founding ideology, the most thoroughly Confucian state East Asia ever produced. Its founders overthrew the Buddhist-leaning Goryeo court and rebuilt Korean society on neo-Confucian lines, and the rebuild extended, deliberately and in detail, into music. In this worldview, which Chapter 2 traced back to the Zhou courts and the debates around Confucius himself, music is not decoration.

It is a moral technology: a way of tuning the feelings of the people and the conduct of the court to the frequencies of a well-ordered world. A state with correct music was a state in alignment with heaven. A state with disordered music was already failing, whether it knew it or not.

So the court institutionalized sound. The Jangagwon, the royal music institute, trained and examined musicians the way other bureaus trained and examined administrators, maintained the instruments, kept the archives, and documented correct performance practice in manuals that still exist. Hundreds of professional musicians held what were, in effect, civil service posts. Music was state business, and it was conducted accordingly.

*Music was state business, and it was conducted
accordingly.*

The broad name for the court and aristocratic repertoire is jeongak, “proper music,” and its masterpiece of slowness is the orchestral piece *Sujecheon*, “Long Life, Everlasting as the Heavens.” A wind-led orchestra, the *piri* double reeds carrying the melody, unrolls phrases so gradually that each tone has time to be born, to swell, and to die honorably. Listen for the moment a phrase ends: the *piri* players stop to breathe, and the *daegeum* flutes and *haegeum* fiddles keep the sound alive across the gap, a trailing handoff called *yeoneum* that makes the music seamless at any speed. Tradition derives *Sujecheon*’s melody from *Jeongeupsa*, a song of the ancient Baekje kingdom, which would make it one of the oldest orchestral pieces on earth still in performance. The story is told with pride and should be labeled clearly: it is a lineage claim, not a document. What is certain is Joseon transmission, and that is antiquity enough.

--- The King Who Wrote the Grid

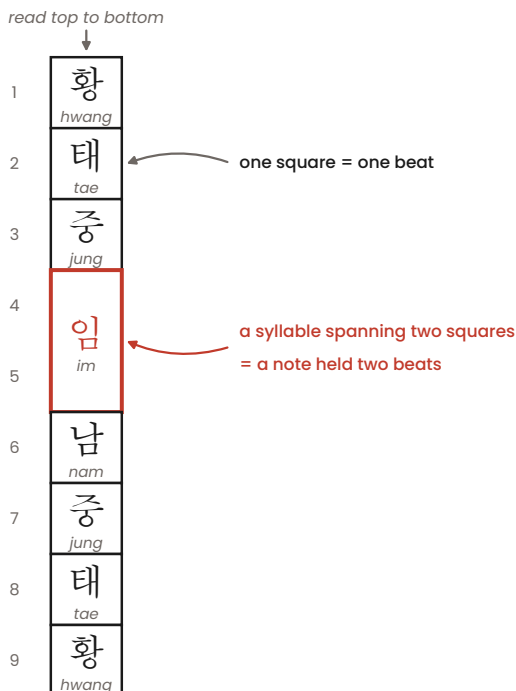
At the center of this chapter stands the same king who stands at the center of Korean history. Sejong, fourth monarch of the dynasty, reigned from 1418 to 1450, and is remembered above all for commissioning *hangul*, the Korean alphabet. Less widely known outside Korea is that the alphabet

was half of a matched pair. Sejong gave Korea a way to write its language, and he also gave it a way to write its music.

He did not work alone. His court theorist Park Yeon, born in 1378, found the ritual music of the new dynasty in disarray: instruments imported generations earlier had decayed or drifted from pitch, and no domestic workshop could replace them. Park Yeon rebuilt the system from the foundation up, fixing the pitch standard and supervising the manufacture of Korea's own pyeongyeong stone chimes and pyeonjong bronze bells, cut from sonorous stone newly quarried at Namyang. Robert Provine, the scholar who has done most to reconstruct this reform, presents it as one of the great acts of applied musicology anywhere: a fifteenth century government research program with tuning forks.

Its most original product was a notation. Court scribes recording music in the annals of Sejong's reign began writing pitches inside a grid, and the grid, called **jeongganbo**, solved a problem that had defeated every earlier notation in the region. Chinese systems could name pitches but were vague about time. In jeongganbo, each square is one beat: a pitch name occupying one square lasts one beat, a pitch spread across two squares lasts two, and an empty square is silence. As the figure shows, duration becomes visible as space. It is the first notation in East Asia to encode rhythm as precisely as pitch, and Korean musicians still read it today. Chapter 8 set jeongganbo beside the world's other ways of writing sound; this is the court that invented it.

JEONGGANBO: A GRID THAT WRITES RHYTHM



King Sejong's grid, c. 1447: East Asia's first notation to write rhythm.

Sejong's grid: each square holds one beat, so a pitch that fills two squares sounds twice as long, and rhythm becomes something you can see.

What did Sejong write with his new tools? The annals credit the king personally with a body of composition, sketched, one account says, by tapping time on the ground with a staff. From verses of Yongbieocheonga, the dynastic epic that was also the first work printed in his new alphabet, came Yeomillak, "Joy of Sharing with the People," a stately orchestral suite still in the court repertoire. Yeomillak is often confused with Sujecheon, since a modern listener meets both as slow orchestral classics; they are different pieces from different streams, one composed at the fifteenth century court, the other inherited with legendary depth. Sejong also produced two grand suites, Botaepyeong and Jeongdaeeop, praising the civil virtue and military achievement of his ancestors. And he asked a quietly radical question, pre-

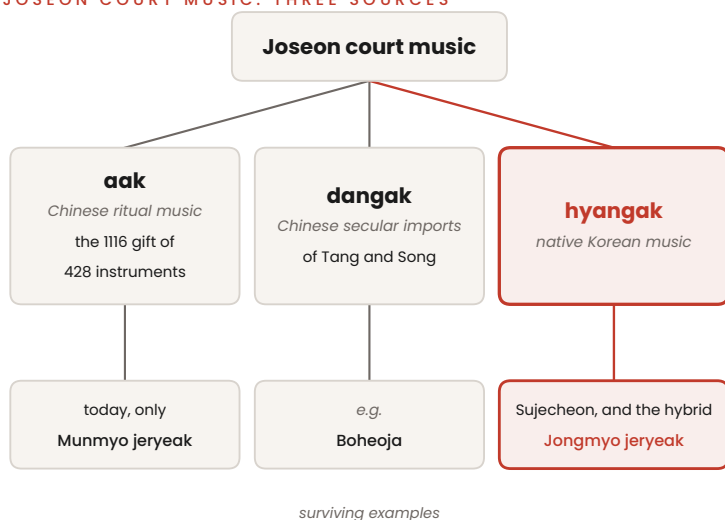
served in the annals: his ancestors had listened to Korean music while they lived, so why should they hear only Chinese music once they were dead?

His successors answered. In 1464 King Sejo adapted *Botaepyeong* and *Jeongdaeeop*, eleven movements each, as the fixed music of the royal ancestral rite, which is the music still performed at Jongmyo every May, proclaimed by UNESCO in 2001 as a masterpiece of humanity's intangible heritage, Korea's first such listing. Three decades after Sejo, in 1493, a commission led by the scholar Seong Hyeon distilled the whole system into the *Akhak gwebeom*, a nine volume treatise recording everything from string gauges and flute bores to the placement of every dancer. When later wars burned the instruments, the book rebuilt them. Notation, repertoire, treatise: the dynasty backed up its music the way modern engineers back up data.

— Three Musics: Aak, Dangak, Hyangak

The court sorted everything it played into three categories, and the taxonomy is worth learning because it is really a map of Korea's long negotiation with China. The figure lays it out: three streams, three origins, three duties.

JOSEON COURT MUSIC: THREE SOURCES



Music classified by origin: ritual, imported, and native.

The three musics of the Joseon court: aak for Confucian ritual, dangak inherited from Tang and Song China, hyangak for Korea's own voice, each with its proper instruments and occasions.

Aak is the Korean pronunciation of *yayue*, the "elegant music" of Chinese Confucian ritual, and its arrival can be dated to the decade Chapter 3 described: in 1114 the Song emperor Huizong sent the Goryeo court a first shipment of 167 banquet instruments, and in 1116 the great Dasheng gift followed, 428 ritual instruments together with 572 costumes and dance objects. War and time were unkind; the Red Turban invasion of 1361 destroyed much, and the tradition was repeatedly rebuilt from Chinese treatises, then rebuilt definitively by Park Yeon under Sejong. Aak was never meant to be beautiful in any immediately pleasurable sense. It was meant to be correct. Every pitch, robe, and gesture conformed to classical specification, because a ritual error was a flaw in the state's alignment with heaven.

Correctness extended to the instrument list, and here a common confusion needs untangling: the zithers of aak are the *geum* and the *seul*, Korean forms of the Chinese *qin* and *se*, and not the *gayageum* or *geo-*

mungo, which never play in the Confucian rite. Around them stand the stone chimes and bronze bells, and winds of deep antiquity: the yak and jeok flutes, the ji, the so panpipes, the hun, an egg shaped vessel of fired clay whose sound seems to come from underground. In this severe form aak survives today in a single ceremony, the Munmyo jeryeak honoring Confucius, performed in Seoul; it is the nearest thing anywhere, China included, to the sound of the vanished Zhou ideal.

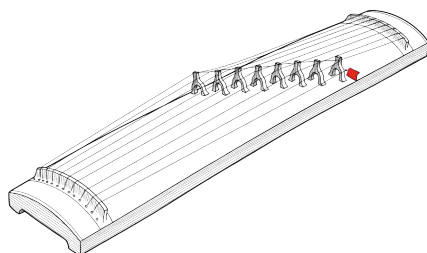
The second stream, **dangak**, is the banquet music Goryeo imported from Tang and Song China, once a large repertoire and now reduced to two thoroughly Koreanized survivors, Boheoja and Nakyangchun. The third, **hyangak**, is Korea's own: the native stream that includes Sujecheon and the world where the gayageum, geomungo, piri, and daegeum live. The categories were not walls, and the traffic between them is the story of Korean court music: when Sejong and Sejo set native composition at the heart of the ancestral rite, hyangak walked into the sanctuary that Chinese ritual music had built.

— The Scholar's Zither and the Twelve Strings

Away from the rite, the instrument of the Confucian scholar was the geomungo, a six stringed zither struck and plucked with a short bamboo rod called the suldae, giving it a voice with a percussive front edge and a dark, woody sustain. The Samguk Sagi, a history compiled in 1145, tells how the Goguryeo minister Wang San-ak remodeled a Chinese qin into the new instrument, and how, when he played, a black crane flew in and danced. The tale is legend, labeled as such even by the historian who recorded it, but it fixed the geomungo's identity: the instrument of cultivated men, played for self discipline rather than display, the Korean cousin of the guqin ideal of Chapter 2.

Its counterpart, and in many ways the central instrument of all Korean music, is the gayageum: twelve strings of twisted silk over a body of paulownia wood, each string riding its own movable bridge, the anjok, shaped like a goose's foot. The player plucks with the right hand and, with the left, presses the strings behind the bridges to bend, shake, and inflect the tone, a vocabulary of touch called nonghyeon that makes the instrument speak in vowels. Here too the founding story is legend, and a good one: the Samguk Sagi says King Gasil of the small Gaya confederacy modeled it on a Chinese zheng, and that the musician Ureuk, carrying twelve

pieces, defected to Silla around 551 when Gaya fell, where King Jinheung took him in. Whatever its literal truth, the story places the gayageum before Joseon, before unified Silla, at the deepest root of Korean musical memory.



The gayageum: twelve silk strings over paulownia, each with its own movable bridge, while the left hand presses behind the bridges to make the plucked tone bend, quiver, and cry.

Two more voices complete the chamber. The haegeum, a two stringed fiddle whose bow is threaded between the strings, has no fingerboard at all; the fingers press the strings in midair, which is why its pitch can swoop and speak with such uncanny flexibility. It descends from the Chinese xiqin and is a close cousin of the erhu, and it plays everywhere, from the court ensemble to the village. And there is the voice itself: the aristocratic vocal art of gagok, extended songs with chamber ensemble, and the shorter sijo, three line poems sung with long, ornamented syllables that give fourteen words the weight of forty.

Much of that vocal culture was carried by women the official histories kept at the margins: the gisaeng, artists trained from childhood in state and regional institutes to sing, dance, play the gayageum, and compose. Their legal status was low; their artistry was often the highest in the country. Hwang Jini, the most celebrated gisaeng of the sixteenth century, wrote sijo that anthologies still open with, and the professional women's lineages that descended from the gisaeng world carried Korea's vocal repertoire across the dynasty's fall and into the first recording studios of the twentieth century. Any history of Joseon music that names only kings and scholars has missed half its performers.

— Pansori: One Voice, One Drum, Every Character

Pansori is where the other Korea sings. It arose in the eighteenth century among the gwangdae, hereditary entertainers of the southwest who lived close to the shaman's world, and it matured in the nineteenth into the most demanding solo art in East Asia: one singer, the sorikkun, with a fan; one drummer, the gosu, with a buk barrel drum; and a story that can run past six hours. The singer narrates in spoken passages called aniri, acts with fan and gesture, and sings every character in turn. The drummer keeps the cycles, and does something more: he shouts. These interjections, chuimsae, "eolssu!" and "jota!", belong to the performance the way a congregation's answers belong to a sermon, and the audience supplies them too. Pansori is technically a solo art and actually a communal one.

The voice itself is the instrument that costs the most. Singers spend years cultivating surisong, the husky, torn grain prized in pansori, and the training lore is full of waterfalls: singing against falling water until the voice breaks and rebuilds itself with a different fiber. A voice that has broken and rebuilt itself does not sound damaged. It sounds true, and when it cracks on a high note the crack lands as emotional fact, the opposite of the polished court ideal and just as deliberate.

*A voice that has broken and rebuilt itself does
not sound damaged. It sounds true.*

The repertoire once counted twelve madang, story cycles; five survive with their music: Chunhyangga, Simcheongga, Heungboga, Sugungga, and Jeokbyeokga. Chunhyangga shows why the form mattered socially. Its heroine, a low born woman who refuses a corrupt magistrate and is vindicated, let a single voice inhabit both the suffering of the powerless and the pomposity of power, collapsing the distance between them in front of a mixed crowd. Pansori was entertainment, and it was also the countryside talking back.

The masters are named and remembered. Song Heung-rok, in the early nineteenth century, was revered as the fountainhead of the eastern singing style; Mo Heung-gap was his great contemporary. Patronage climbed the

social ladder as the century went on, reaching the regent's court itself, and a retired official named Shin Jae-hyo, born in 1812, became the art's first theorist, polishing and writing down the texts and training singers in his own compound. In the twentieth century Kim So-hui carried Chunhyangga to the world's concert halls, and Park Dong-jin revived the marathon complete performance, singing entire madang across five and six hours. UNESCO listed pansori among humanity's masterpieces in 2003, by which time the art had already done the harder thing: it had survived.

FIGURE

Jin Chae-seon, the First Woman of Pansori

Pansori was a men's profession for its first century and a half. The person who ended that was Jin Chae-seon, a singer from Jeolla Province who trained in the 1860s under Shin Jae-hyo, the theorist and patron who had made his house the art's first academy.

The story, told ever since, is that she stunned the capital at festivities for the rebuilt Gyeongbokgung palace, singing with a power no one expected and some refused to credit. The regent himself is said to have kept her at court, and Shin Jae-hyo, her teacher, to have written of her in verse. As with much in pansori's early history, the documents are thin and the tradition is vivid; what is certain is her place in the lineage as its first woman.

The door she opened never closed. From Kim So-hui in the twentieth century to the present day, when a majority of pansori singers are women, the art's most celebrated voices have walked through it.

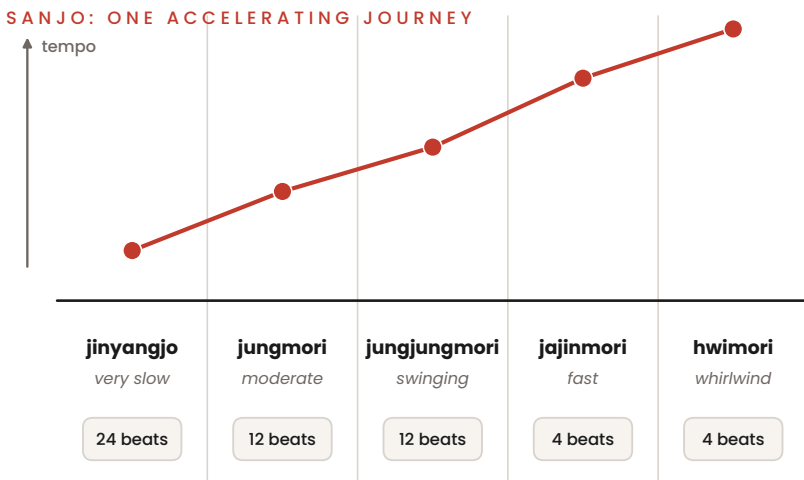
— From Shaman Ground to Sanjo

Beneath both court and market lay an older musical ground: the gut, the Korean shaman ritual, and its music, muak. In the southwest especially, hereditary shaman families kept ensembles whose job was to move spirits and people at once, and out of their practice came sinawi, a music in which piri, daegeum, haegeum, and zithers improvise simultaneously over the drummer's cycles, weaving lines that collide and resolve like an argument that keeps agreeing. Sinawi is the seedbed of Korean improvisation, and its rhythmic engine drives everything in this section.

From that seedbed, late in the nineteenth century, came **sanjo**, "scattered melodies," the solo instrumental form that is folk Korea's answer to

the concerto. The first gayageum sanjo is credited to Kim Chang-jo of Jeolla, around 1890; his dates are usually given as 1865 to 1919, though the sources disagree, a reminder of how recently this music lived outside written history. Sanjo took the sinawi idiom and the pansori voice and translated them for ten fingers: one player, one janggu drummer, and an architecture of pure acceleration.

That architecture is a fixed sequence of jangdan, rhythmic cycles, each faster than the last: jinyangjo, the slowest, where phrases stretch almost to court music breadth; jungmori, a steady twelve beats; jungjungmori, the same length with a new lilt; jajinmori, driving and tight; and hwimori, the whirlwind. The arc traced in the figure is the whole drama: a performance that begins in meditation and ends at a gallop, without ever once losing the cycle. Listen to a full gayageum sanjo and notice the moment, somewhere in jajinmori, when you realize you have been holding your breath.



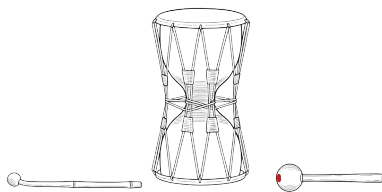
One continuous accelerating journey: gayageum with janggu drum.

The sanjo journey climbs through its jangdan, from the crawling jinyangjo to the whirlwind hwimori, an hour of continuous acceleration that never loses the cycle.

Sanjo spread from the gayageum to the geomungo, the daegeum, and nearly every other melodic instrument, and it carried a social meaning as pointed as its rhythms. Its makers were musicians of low standing who had absorbed the court's melodic vocabulary and bent it toward feeling the court would never license: grief, humor, defiance, joy. Within a generation, sanjo stood beside jeongak as Korea's second classical music, which is exactly what it is.

— The Farmers' Thunder

The loudest music in old Korea belonged to the villages. Nongak, the farmers' band tradition, put four instruments at the center of communal life: the kkwaenggwari, a small gong with a voice like tearing metal; the jing, a large gong that blooms underneath; the janggu, the hourglass drum whose two heads speak in different voices; and the buk barrel drum. The lead kkwaenggwari player, the sangsoe, steers the band through interlocking patterns while the musicians dance, spin the long ribbons of their sangmo caps, and stack themselves into acrobatic towers. Nongak began as planting and harvest ritual, calling spirits to protect the village, and grew into festival entertainment; Keith Howard, who spent years documenting these bands and the shaman rituals beside them, describes a music woven so tightly into village labor that separating the two falsifies both. Its rhythms remain the most infectious in East Asia, and in 2014 UNESCO added nongak to its heritage list.



The janggu's two heads speak in different voices, a deep boom from the palm side and a sharp crack from the stick side, and between them they carry every jangdan in Korean music.

In 1978 that village thunder walked onto a concert stage. At a small Seoul arts theater, four percussionists performed the nongak repertoire seated, stripped of costume and acrobatics, under a new name: samulnori, "four

things played.” The classic lineup, as it settled in those first months, was Kim Duk-soo, Kim Yong-bae, Lee Kwang-soo, and Choi Jong-sil, though the founding roster shifted early and the honor is best shared. Concentrated into pure sound, the old patterns proved hypnotic to audiences who had never seen a rice field, and samulnori became Korea’s first traditional music to conquer international stages, feeding jazz collaborations and conservatory curricula alike.

It was a resurrection with a hard century behind it. Japanese colonial rule from 1910 worked to shrink Korean culture; the Jangagwon survived only as a reduced household bureau for the deposed royal family, and its musicians kept the ancestral rite alive on a caretaker’s stipend. War divided the peninsula and burned its cities. Yet in 1951, with Seoul itself a battlefield, the state chartered the National Gugak Center in wartime Busan to carry the court lineage forward, and the institution claims, with only pardonable exaggeration, an unbroken line of court musicians reaching back through Joseon. Chapter 23 follows what that survival made possible: a generation of bands carrying geomungo and pansori grain into rock clubs and festival stages from Seoul to Glastonbury.

Hold the two images from the beginning of this chapter side by side one last time. At Jongmyo, a tone opens for ten seconds inside a stillness that is not emptiness but something more like concentrated presence. In Jeolla, a torn voice drags an audience through six hours of grief and laughter. Joseon Korea built both, notated one, trained bodies to carry the other, and understood them as the same discipline pointed at different hours of human need. That understanding is what connects the slow, composed ritual of the shrine to the broken, crying voice of the pansori singer, and it is why Korean music, across all its registers, remains recognizably one music.

LISTENING NOTES

♪ National Gugak Center, Jongmyo Jeryeak

The royal ancestral rite complete; listen for how each tone of Botaepyeong is born, swells, and dies before the next arrives, ceremony conducted at heaven’s tempo.

♪ National Gugak Center Court Music Orchestra, Sujecheon

Korea’s great slow masterpiece; hear the yeoneum handoffs where the piri players breathe and the flutes and fiddles carry the sound across the gap.

♪ **Kim So-hui, Chunhyangga**

The twentieth century's defining pansori voice; wait for the passages where the surisong grain breaks on a high note and the break lands as pure feeling.

♪ **Hwang Byungki, Chimhyangmu**

The 1974 work that founded the modern gayageum repertoire; silk strings bent and shaken until the zither seems to speak, a bridge from sanjo into the present.

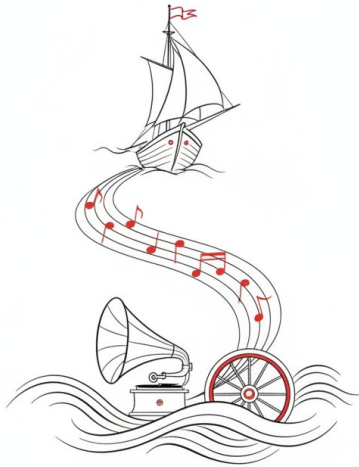
♪ **Kim Duk-soo and SamulNori, Drums and Voices of Korea**

The 1978 revolution on record: four players, four instruments, and the whole rhythmic engine of the farmers' bands concentrated onto a single stage.



PART IV

Collision and Exchange



Ships, colonizers, world fairs, and wax cylinders: the age in which every musical tradition on Earth was made to hear every other, on radically unequal terms.



COLLISION AND EXCHANGE — CHAPTER 16

Ships and Silk: Trade Routes and Musical Exchange

Instruments are ideas you can hold. For two thousand years they crossed deserts and oceans, and every crossing changed both the instrument and the hands that received it. Then the ships began to carry empires.

100 BCE TO 1940 CE

• THE SILK ROAD AND THE INDIAN OCEAN



safir · the journey

On a December evening in a Chennai concert hall, a violinist settles onto the floor, and the instrument in her hands is not doing what it was built to do. She sits cross legged, the scroll of the violin braced against her right ankle so the neck points down toward the floor, the body of it resting on her chest. She has retuned the four strings so they no longer climb by fifths from G to E but instead sound the tonic and the fifth twice over, tuned to

the singer she will follow. When she begins, the bow does not articulate crisp Western phrases. It slides, and clings, and bends between the notes, chasing the gliding ornaments the Tamil call *gamaka*, shadowing a human voice so closely that a listener with closed eyes could lose track of which is which.

This is a European instrument that has forgotten it is European. The violin took shape in the workshops of northern Italy, and within three centuries of its invention it had crossed an ocean, sat down on the floor of a South Indian hall, been retuned and reangled and rethought, and become one of the central instruments of a classical tradition far older than itself. Nobody in Cremona designed it for this. That gap, between what an instrument was made to do and what a distant people made it do, is the subject of this chapter.

Because instruments are ideas you can hold. An oud, a violin, a reed organ carries within its physical design certain implicit theories about pitch, timbre, and technique, and when a community adopts a foreign instrument it takes in, at least partly, a foreign way of thinking about sound. For two thousand years those ideas rode the trade routes in both directions, and every crossing changed both the object and the hands that received it. What the age of European empire added was not exchange, which was already ancient. It was exchange conducted under conditions of extreme power imbalance, and that imbalance shaped what was kept, what was discarded, and what quietly survived.

— Ideas You Can Hold

Long before any European sail appeared in Asian waters, music was already the most mobile of goods, and the most durable. The overland Silk Road, busiest in the era of Tang China and the Abbasid caliphate, carried musicians as readily as it carried silk and jade, and the sea routes of the Indian Ocean, which linked East Africa, Arabia, India, and the Malay world into a single trading system, carried them too. Arab merchants who settled the Swahili coast brought their scales and drums, and those mixed with what they found. The same sailors knew the songs of both the Malabar and the Omani shores, because they moved between them with the monsoon. None of this required conquest. It required only that people who make music go where the trade goes.

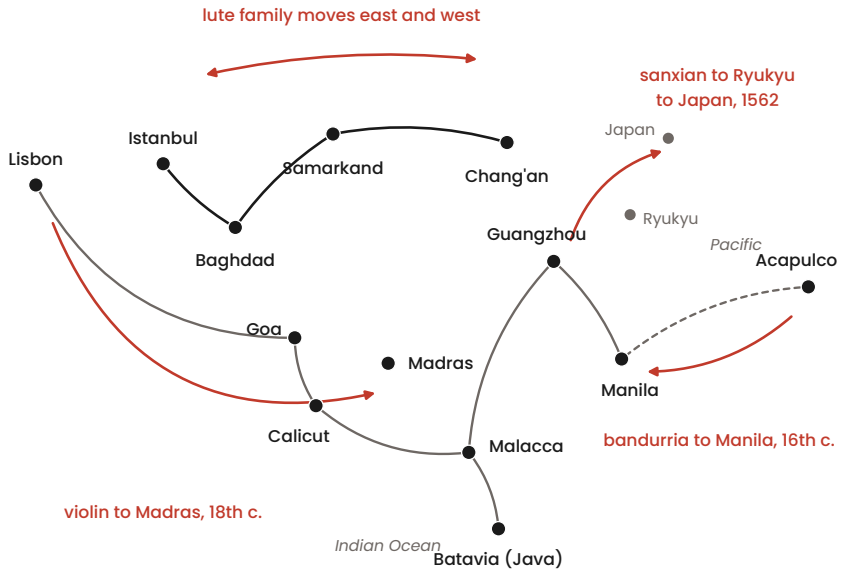
The Malay world sat at the center of this web, the pivot between the Indian Ocean and the South China Sea, and it absorbed accordingly. Indian narrative and Indian instruments, Chinese trade goods, and Arab devotional song all reached the archipelago centuries before any Portuguese pilot charted it, and the plucked Arab lute the region calls the gambus arrived with Hadrami merchants and settled into local ensembles as though it had always belonged. What the routes carried was never a single line from one source to one destination. It was a web, and every node on it was at once a receiver and a sender.

The hinge of this chapter is the moment that exchange acquired a boot on its neck. In 1488 the Portuguese captain Bartolomeu Dias rounded the southern tip of Africa, the Cape of Good Hope, and proved the Indian Ocean could be reached by sea from Europe. A decade later Vasco da Gama's fleet made the crossing, sailing in 1497 and dropping anchor at Calicut on the Malabar coast in May 1498. Within a few years Afonso de Albuquerque had taken Goa, in 1510, and the pattern of the next four centuries was set. Ships that had once carried pepper now carried empires, and the music that traveled with them traveled under new rules. The exchange did not stop. Its terms changed.

— The Lute's Ten Thousand Miles

Follow one family of instruments and you can watch the whole system work. The plucked lute is the great traveler of Eurasian music. The Chinese pipa, the pear shaped lute at the heart of Tang court music, arrived from Persia by way of Central Asia, a cousin of the barbat that Chapter 5 met in the Sasanian court. That same barbat, carried west by Arab conquest and Andalusí refinement, became the oud, and the oud in turn crossed the Pyrenees to become the European lute, one of a whole convoy of instruments that Chapter 9 followed across the Mediterranean: the rabab that became the rebec, the naqqara kettledrums that became the nakers of medieval Europe, the shawm, the sackbut. The angular harp the Chinese called konghou had West Asian origins. The transverse flutes of the Chinese court had steppe ancestors.

INSTRUMENTS ON THE MOVE · 1400–1800



The instrument roads: the Silk Road and the Indian Ocean drawn with the migration arrows of the lute family, the pipa moving east from Persia, the oud moving west into Europe, the sanxian moving out to Okinawa and Japan, each arrow marking an idea that changed with every border it crossed.

As the map shows, these instruments did not travel as finished objects stamped out at a single origin. They evolved in parallel and in contact, each version reshaped by local hands and local ears. The Chinese sanxian, a fretless three string lute, crossed to the Ryukyu Islands in the sixteenth century and became the snakeskin sanshin, then crossed to the Japanese mainland and became the shamisen of Chapter 13, its body now covered in cat or dog skin and its tone bent toward the buzzing sawari the Japanese prized. Across Central Asia the long necked dutar appears in a chain of regional forms from Turkey to western China, no two quite alike, and the rubab of Afghanistan has relatives scattered along the entire breadth of the routes. The Central Asian khanates, Bukhara and Samarkand and Khiva, were musical capitals in their own right, and their courtly maqam repertoire, the Shashmaqam of Bukhara most fully documented among them,

preserved a music that faced Persia to the west and China to the east at once. An instrument is a theory of sound that survives translation because it can be carried, retuned, and made to speak a new language without being destroyed.

Bowed strings traveled the same way. The Chinese family of fiddles called *huqin*, literally the “foreign” or barbarian instruments, came in from the horse cultures of the north and west and became, over the centuries, the *erhu* and its many cousins, the sound now heard as the most Chinese of timbres though its very name records that it arrived from elsewhere. An instrument, once naturalized, tends to erase the memory of the border it crossed, and that forgetting is itself a kind of proof, evidence of how completely the receiving culture makes the foreign thing its own.

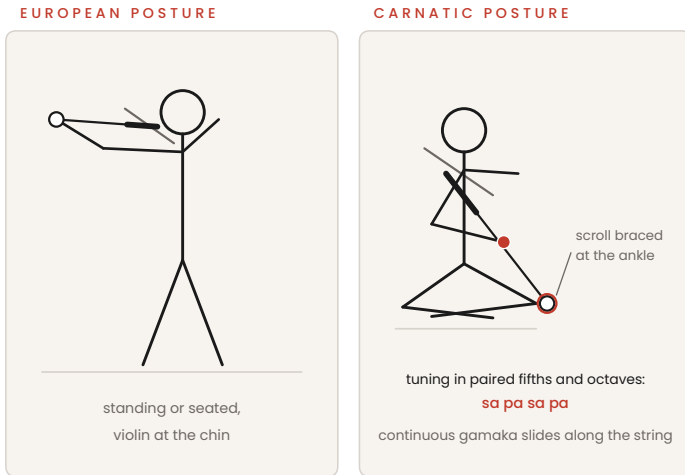
— The Violin Learns to Sit on the Floor

Now back to the violin on the floor of the Chennai hall, and to a myth worth correcting. It is sometimes said that the Portuguese brought the violin, and even the *fado*, to India in 1510. They did not, and could not. The violin as we know it was still taking shape in the workshops of Cremona and Brescia in the 1530s and after; the caravels of 1510 carried viols and *vihuelas*, and *fado* would not be born in the taverns of Lisbon for another three centuries. The violin’s real conquest of South India came later and by a different road, and it came through the British.

By the early nineteenth century, European regimental bands were a fixture of colonial Madras, and Indian musicians heard the violin there. Two names anchor its adoption into Carnatic music. Baluswami Dikshitar, the youngest brother of the great composer Muthuswami Dikshitar, learned the Western violin as a boy from a European player around the turn of the century and carried it into the classical tradition of the south. Vadivelu, one of the four brothers of the Tanjore Quartet who codified so much of South Indian dance music, pioneered it alongside him. Within a generation the violin had become the standard melodic partner to the Carnatic voice.

The violin filled a real need. A melodic tradition that lived on the human voice wanted an instrument that could shadow the voice without the compromises of the older bowed and plucked instruments, and the fretless violin, with its capacity for continuous unbroken pitch, could do exactly that. In the north the bowed *sarangi* already served that role for the Hindustani voice, matching its every slide and sob; the south, hearing the

violin in the colonial bandstand, recognized in it a better tool for the same job and simply took it, drone tuning and all.



The domesticated violin: seated cross legged with the scroll braced at the ankle, the four strings retuned in fifths and octaves to sound the tonic and fifth rather than G, D, A, E, and the bow taught to slide through the gamaka ornaments that European bowing never asks for.

But the Indians did not play it as Europeans played it, and the figure shows how completely they remade it. Held on the floor with the scroll at the ankle, retuned to the drone, bowed to slide and cry through the gamaka rather than to articulate cleanly, the violin was thoroughly domesticated. It was made to serve a melodic tradition far older than itself, one built on gliding continuous pitch rather than the discrete steps a violin was designed to sound. The scholar Amanda Weidman has written about how completely the instrument was absorbed, to the point that a South Indian violin performance now bears almost no audible resemblance to European playing beyond the shape of the wood. This is the recurring pattern of the whole chapter, and it deserves stating plainly. Communities rarely absorb foreign music passively. They reshape what arrives, bending it toward what they already know how to hear.

*They reshape what arrives, bending it toward
what they already know how to hear.*

— Manila, Batavia, Goa: Creole Musics

Three port cities show the same alchemy producing three new musics. In Manila, under Spanish rule from 1565, when Miguel Lopez de Legazpi established the colony, Filipino musicians received the plucked bandurria and laud from Spain and built from them the rondalla, the string band that became the sound of village weddings and fiestas across the islands. The bandurria was reshaped, its string count and tuning adjusted to local hands, until what emerged was recognizably Spanish in ancestry and unmistakably Filipino in use. Manila was also the Asian terminus of the Manila galleon, the trade line that ran across the Pacific to Acapulco for two and a half centuries, and along it moved not only silver and porcelain but villancicos and church music, a current of Mexican and Iberian song flowing into Philippine Catholic life.

Out of that colonial soil grew a song form with a two stage history worth getting right. The **kundiman** began in the nineteenth century as a folk genre of love songs in a characteristic minor to major turn, and it acquired a political charge during the revolution against Spain; the melody known as “Jocelynang Baliwag,” associated with the Katipunan movement around 1896, is remembered as the kundiman of the uprising. Only later, in the 1920s and 1930s, did the Western trained composers Nicanor Abelardo and Francisco Santiago lift the form into art song, giving it concert structure and conservatory polish while keeping its ache of longing. Colonial education handed these composers their technical tools, and they turned those tools toward feelings and a national identity that colonialism was trying to suppress.

In Batavia, the Dutch capital on Java, another creole music had been forming since the Portuguese century. **Kroncong** takes its name from the jingling sound of a small plucked instrument the Portuguese brought, and it grew in the mixed settlements of Mardijkers, freed slaves and their descendants from Portugal’s colonies, in villages such as Kampung Tugu near

Batavia. Over generations it fused Iberian guitar and ukulele like instruments with Javanese melody and feeling, until by the nineteenth century it was no longer traceable to any single source. Kroncong became the music of the colonial urban poor, then a fashion of the 1930s, then a vehicle of Indonesian national sentiment; the ethnomusicologist Philip Yampolsky has traced its tangled ancestry with care. Its most beloved song, *Gesang Martohartono's "Bengawan Solo,"* composed in 1940 about the great Solo River, spread across Asia and was recorded in dozens of languages, a quiet melody of attachment to place that carries no obvious trace of the ships that made it possible.

Ceylon offers the textbook case of the pattern. On the island the Portuguese and their African and Indian retainers left behind *baila* and its cousin *kaffrinha*, dance musics built on lilting Iberian rhythms and guitar, which the Sri Lankans absorbed so thoroughly that *baila* became, over the following centuries, a defining sound of the island's popular music, sung in Sinhala at weddings and street parties with no memory of any caravel required to enjoy it. The ancestry is real and the music is entirely Sri Lankan, both at once.

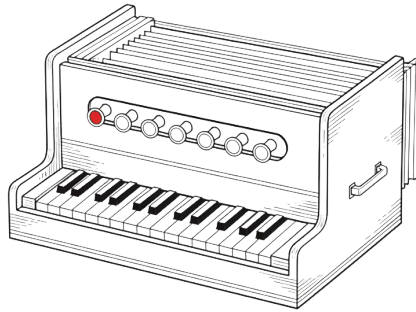
Goa, taken in 1510, became the eastern headquarters of Portuguese Catholic music, and its influence radiated outward through two channels the histories often miss. The first was the Goan musician himself: generations of Goans, trained in Western harmony and notation in the churches of the colony, staffed the military and dance bands of British and princely India and later seeded the jazz and film music of Bombay, a diaspora of trained ears carrying European sound deep into the subcontinent. The second was the military band as such, the single most effective vector of Western music into colonial Asia, drilling European scales and marches into public space in every garrison town. The same Iberian Catholic current reached its furthest edge in Japan, during what is called the Christian century, from Francis Xavier's arrival in 1549 to the persecutions of the 1630s. Jesuit seminaries there taught Western singing and instruments; and in a startling episode of reverse traffic, the Tensho embassy of four young Japanese Christians sailed to Europe between 1582 and 1590, performed on Western instruments before princes and the Pope, and returned home with a printing press, only for the door to slam shut behind them as Japan turned to the seclusion of Chapter 13.

— The Reed Organ That Conquered India

British power in India, dominant by the late eighteenth century and total by the mid nineteenth, produced a more ambivalent musical legacy. The early servants of the East India Company were often genuinely curious; Sir William Jones, founder of the Asiatic Society, wrote the first serious European study of Indian music theory in the 1790s. But as the century wore on, that curiosity hardened into the systematic contempt of the high colonial period, and Indian classical music was dismissed as primitive or morally suspect. The **devadasi** tradition suffered most directly. These were the temple dancers and musicians of South India, hereditary artists dedicated to temples and trained from childhood, and they were attacked at once by British reformers and by Indian ones who had absorbed Victorian ideas of respectability. The art nearly died with the institution. The campaign against it, the so called anti nautch movement, ran for half a century, casting the temple artist as a figure of scandal rather than of sacred office. Its revival split into two poles that still define the debate: Rukmini Devi Arundale, a Brahmin theosophist who founded the Kalakshetra academy in 1936 and remade temple dance as a purified concert art, and Balasaraswati, the supreme hereditary artist of the devadasi line, who carried the living tradition forward on its own terms and resisted the sanitizing. The Madras Devadasis Act of 1947, driven through by the physician and legislator Muthulakshmi Reddy, herself born into a devadasi family, outlawed the dedication that had sustained the art for a thousand years, saving the dance while dismantling the community that had kept it.

The most lasting British import, though, was neither scholarship nor law but a small wooden box. The **harmonium**, a reed organ pumped by bellows and played with one hand while the other works the air, reached India in the nineteenth century, and Indian makers soon built a hand pumped version suited to a musician sitting on the floor. Classical purists resisted it, and their objection was exact: its fixed equal tempered tuning cannot bend a note, cannot sound the microtonal shadings of a raga, cannot produce the gamaka that lives in the space between two pitches. But it was cheap, portable, nearly unbreakable, and easy to learn, and it spread like water finding its level, through devotional bhajan, through qawwali, through the new film industry, and finally into the accompaniment of Hindustani classical song itself. Carnatic musicians in the south rejected it and kept the violin they had already made their own; North India took it in so com-

pletely that most listeners no longer hear it as foreign at all. It sounds like home.



The Indian harmonium: a European reed organ rebuilt to be played on the floor, one hand pumping the bellows while the other fingers the keys, its equal tempered tuning unable to bend a note yet beloved across North Indian devotional and classical song.

CONCEPT

The Harmonium Wars

No imported instrument has been argued over as long. The case against the harmonium was made on principle: raga lives in the continuous inflection of pitch, and a keyboard of fixed equal tempered reeds flattens those living intervals into a grid. To its critics the instrument was a colonial intrusion that was quietly retuning the Indian ear to Western temperament.

The argument reached the level of state policy. All India Radio, the most powerful patron of music in the new nation, banned the harmonium from its broadcasts in 1940, judging it unfit to represent Indian classical music, and the ban held in large part for decades before being only partially lifted around 1971. Solo harmonium remained restricted on air long after accompaniment crept back.

And yet the players never surrendered it. For the singer of bhajan or qawwali, for the accompanist who needs a reliable drone and a portable set of pitches, the harmonium's virtues outweighed the theorists' objections. The scholar Gerry Farrell, writing on the long entanglement of Indian music and the West, treated it as the perfect case study in how a community makes a foreign object indispensable, ban or no ban. It sounds, its defenders keep

saying, like home.

— Qawwali: the Sufi Sound Goes Public

One tradition shows how a music can keep a deep spiritual function while remaking its whole social surface. **Qawwali** is the devotional music of the Chishti order of Sufis, sung to carry listeners toward the divine, and it is old. Tradition credits its founding to Amir Khusrau, the towering Indo Persian poet and musician of Chapter 10, who served the Delhi Sultans around 1300 and is said to have shaped qawwali by fusing Persian, Arabic, and Indian elements at the shrine of his master Nizamuddin Auliya. The attribution is traditional rather than documented, and honest history flags it as such, but Khusrau's milieu is real and the lineage genuinely runs back into it.

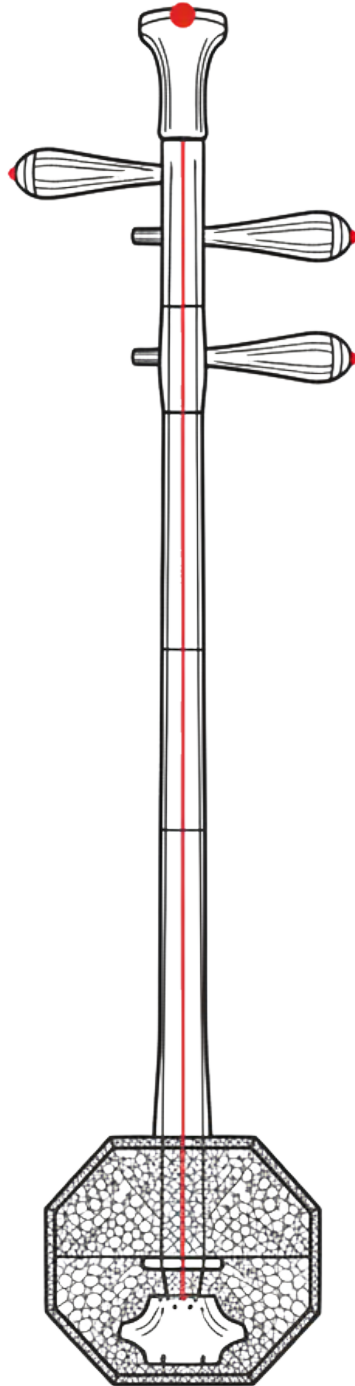
The music is built for its purpose. A qawwali party seats a lead singer and one or two supporting voices at the front, backed by a chorus that claps the pulse and answers the leader, with harmonium and tabla underneath. A performance takes a couplet of devotional verse, in Persian, Urdu, or the Punjabi of the Sufi poets, and repeats and reshapes a single line, climbing it and returning to it and climbing again, until the gathering, the sama, tips over into the ecstatic state the whole rite exists to produce. The form is a machine for building intensity, and it works in a shrine courtyard exactly as it works in a concert hall.

Under the Mughals qawwali flourished on court and shrine patronage alike. Under British rule the court patronage largely vanished, and the qawwals had to sing for a different economy, performing at shrines and public festivals for popular audiences rather than for princes. The pressure pushed the music toward greater accessibility and emotional directness, and it grew more popular precisely as it lost its elite support. By the twentieth century qawwali was among the most widely heard musics in South Asia, and in the 1980s and 1990s it reached the entire world through the recordings of Nusrat Fateh Ali Khan, whose story Chapter 20 tells in full. The Sufi assembly had become a global stage without ever ceasing to be a devotional rite.

— Shanghai Modern

China took a different path, because China was never fully colonized in the way India or the Philippines were. After the Opium Wars, the foreign powers carved out treaty ports, zones of European influence in cities like Shanghai, while musical life in the interior went on largely by itself. What the treaty port produced instead was a hybrid urban popular music that had no precedent anywhere: **shidaiqu**, the “songs of the era,” born in Shanghai in the 1920s and 1930s. Its founding figure was Li Jinhui, a composer and educator who ran the Bright Moon Song and Dance Troupe and who deliberately married Chinese pentatonic melody to the harmonies of the Western dance band and the machinery of records and radio that foreign companies had installed. The result was denounced by conservatives as decadent and later, under the People’s Republic, condemned outright as “yellow music,” but at its height it was one of the most inventive popular musics on earth.

None of it could have happened without the machines the foreigners brought. Shanghai was the recording capital of Asia, its studios pressing discs for Pathe and the companies that absorbed it, its radio stars famous across the Chinese speaking world from Singapore to San Francisco. The apparatus that later crowned the so called seven great singing stars of the 1940s was an industrial one, records and airwaves and cinema working together, and it turned individual voices into the first mass mediated celebrities Chinese music had known. The treaty port had imported opium and exported humiliation, and it had also, almost as a side effect, assembled the machinery of a modern popular culture.



The erhu, a two string bowed fiddle whose ancestor the huqin came into China along the same steppe routes as the lutes; in the jazz inflected songs of 1930s Shanghai its sliding, vocal tone kept the melodies unmistakably Chinese over borrowed Western chords.

Its defining voice belonged to Zhou Xuan, the “Golden Voice,” whose recordings from the 1930s and 1940s remain among the most recognizable sounds of the era; her “Wandering Songstress,” from the 1937 film *Street Angel*, is still sung. As the figure suggests, what kept these songs Chinese even as they moved through borrowed chord progressions was the timbre of the traditional instruments woven through them, above all the erhu, the sliding two string fiddle whose own ancestor had arrived centuries earlier along the same routes as the lutes. Shanghai in the 1930s was, musically, one of the most interesting places in the world, and the recording industry that made it possible was already becoming the dominant force in the story, the last and most powerful of the ships.

That is where this chapter hands off. The gramophone and the wax cylinder were about to do to musical exchange what the caravel had done to trade, compress it, accelerate it, and tilt its power still further, and Chapter 18 follows the moment when the West set out to record and classify the music of the East. Chapter 20 will pick up the return traffic, when Asian musicians carried their traditions back out to the world on their own terms. For now the point is the older and simpler one. Trade routes move goods, and they also move ideas, instruments, scales, and rhythms, but music behaves unlike any other cargo. Music, unlike most trade goods, does not deplete when it is shared. A melody borrowed leaves the lender no poorer, and so, for all the violence and extraction of the age of empire, the music that came out of the collision was not only a record of loss. It was also a record of unexpected fertility, of forms that could not have existed until the ships forced the meeting.

*Music, unlike most trade goods, does not
deplete when it is shared.*

LISTENING NOTES

♪ **Zhou Xuan, "The Wandering Songstress" (Tianya Genu)**

The signature shidaiqu voice on a 1937 film song; hear the Chinese pentatonic melody and the sliding erhu riding over dance band harmony borrowed from American popular music.

♪ **Nusrat Fateh Ali Khan and Party, qawwali recordings for Real World**

The Chishti devotional tradition at full global power; listen for the handclaps, the harmonium drone, and the way the lead line is repeated and pushed higher until the assembly ignites.

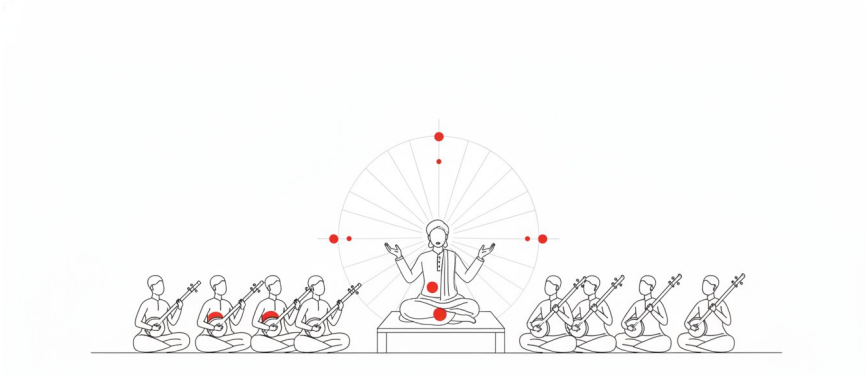
♪ **Gesang, "Bengawan Solo"**

The most famous kroncong song, composed in 1940; a Portuguese descended creole music turned into a melody of pure Javanese attachment to a river and a place.

♪ **Lalgudi Jayaraman, Carnatic violin**

The domesticated violin in a master's hands; follow the bow as it slides and clings through the gamaka, shadowing the phrasing of a human voice on an instrument built in Europe to do the opposite.





COLLISION AND EXCHANGE — CHAPTER 17

Codification and Mastery: The Classical Zenith

Across the long nineteenth century, from Thanjavur to Tehran to Beijing, the great traditions wrote their own constitutions: who may play, what counts as mastery, and how perfection is to be measured.

1700 TO 1900

· THANJAVUR, DELHI, TEHRAN, ISTANBUL, BEIJING

sangita · the complete art of
music

संगीत

Every January, on the bank of the Kaveri at Thiruvaiyaru in the Tamil country, a few hundred musicians sit down in the cold morning and sing the same five songs together. They have never all rehearsed. Many have never met. It does not matter, because the five songs, the Pancharatna kritis of the composer Tyagaraja, are fixed to the syllable, and every serious student of Carnatic music has carried them in the body since childhood. A violinist

raised in Chennai and a singer raised in Cleveland, Ohio, sit knee to knee and produce, with no conductor, the same phrases in the same ragas at the same speed. The composer has been dead since 1847. The unison is total.

That morning is codification made audible. It is possible only because, at some point, a sprawling oral art agreed on a canon: these songs, in these forms, are the tradition, and to master the tradition is to master them. Something like that agreement was reached, independently and at roughly the same time, across the great musical civilizations of Asia. Between the early eighteenth century and the end of the nineteenth, from Thanjavur to Tehran to Istanbul to Beijing, traditions that had grown for a thousand years by accumulation began, deliberately, to write their own constitutions: rules for who may play, definitions of what counts as mastery, and standards by which perfection could be measured.

This did not happen because these worlds were in contact. Persia, India, China, and the Ottoman lands each arrived at codification through their own histories and their own anxieties. Nor was it a golden age, whatever later nostalgia has made of it. What happened was more like a long argument coming to a conclusion, a settling of what counted as mastery and what counted as mistake. And every settling of that kind has a cost, because a canon is defined as much by what it shuts out as by what it lets in. This chapter follows the constitutions, and, at the close, counts what they excluded.

— The Long Argument Ends

Historians borrow a phrase for the stretch of time this chapter covers: the long nineteenth century, running from the revolutions of the late seventeen-hundreds to the First World War. It is a useful frame here because these codifications did not respect calendar centuries. They were slow, mostly unplanned, and often invisible to the very people carrying them out, who believed they were simply teaching their students correctly. What they were actually doing was converting living practice into conscious system, deciding which forms would carry the tradition forward and which would be let go.

A long argument coming to a conclusion, a settling of what counted as mastery and what counted as mistake.

That decision is never neutral. It involves exclusions as much as inclusions, and the music left out of the canonical forms is as revealing as the music kept in. But the systems that survived the process were, in most cases, extraordinary: bodies of musical thought so deep that, once organized, they could sustain creative practice for generations without needing to invent anything new. We begin with the most distinctive organizational form that any musical tradition has produced.

— The House Style: Gharanas

North Indian classical music organized itself around the household. The word gharana comes from ghar, house, and a gharana is a lineage-school: a line of musicians, bound by blood or by the years-long discipleship that functions as blood, transmitting one recognizable way of shaping a raga from master to student across generations. By convention a lineage needs roughly three generations of distinguished musicians before it may claim the name.

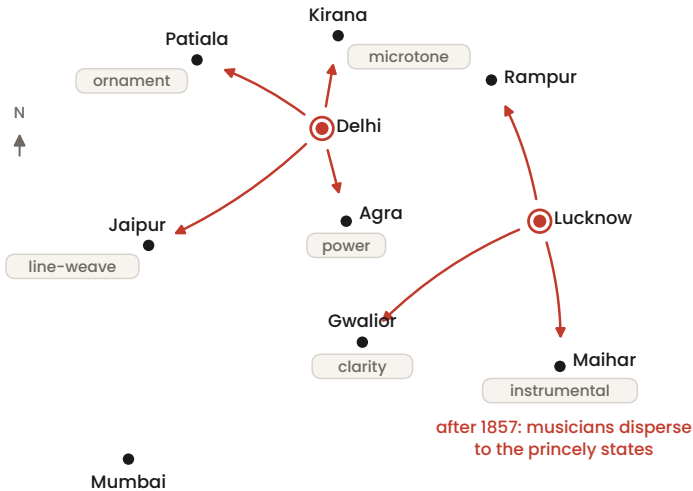
The gharanas are usually spoken of as though they were ancient. Most are not. The ethnomusicologist Daniel Neuman has shown that the system crystallized in the nineteenth century, and that its decisive accelerant was catastrophe. The failed rebellion of 1857, after which the British dismantled the Mughal remnant at Delhi and the great patron court of Lucknow, scattered their musicians across the princely states of Rampur, Gwalior, Jaipur, Patiala, and beyond. Dispersed and suddenly competing for new patrons, families that had shared a common court practice began to define and defend distinct house styles. Codification, here, had a cause, and the cause was the loss of a world.

By this period the dominant vocal form was no longer the austere dhrupad of Tansen's century, described in Chapter 10, but khayal, the freer and more ornamented form that Sadarang's generation had raised to court status. Dhrupad kept its dignity and its specialists; khayal took the crowd. The gharanas were, above all, schools of khayal, and each one stood for a

proposition about how the form should sound. The figure sets them side by side.

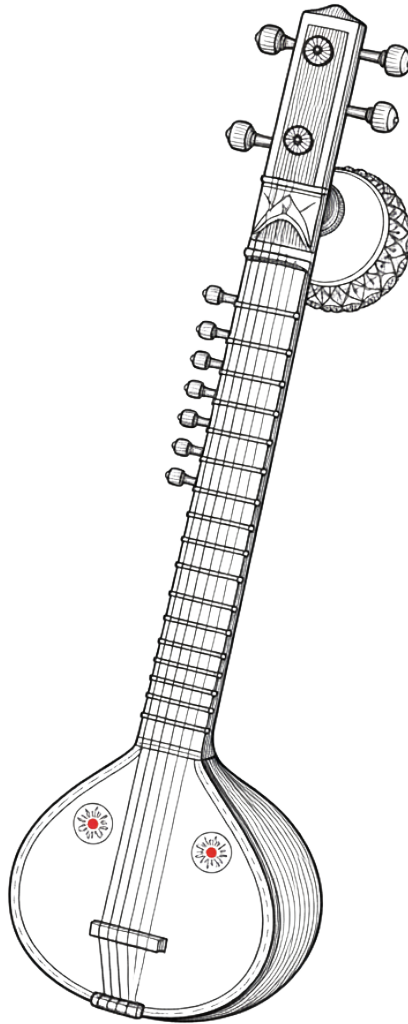
The Gwalior gharana, oldest of them, stood for clarity: the full and correct development of a raga's shape before any ornament was added, a ground-floor education that produced singers who knew the architecture before they decorated it. The Agra gharana, rooted in the older dhru-pad, sang with gamak, a forceful oscillation that gave even slow passages a percussive muscle. The Kirana gharana, associated with the singer Abdul Karim Khan, went inward, toward a slow, microtonal attention to the interior of each note. The Jaipur-Atrauli gharana, founded by Alladiya Khan, built its reputation on rare, complex ragas and a rolling, aakar-driven line. The Patiala gharana, descending from the court singers known as Aliya and Fattu, prized ornamental brilliance and the light, quicksilver tappa. The Rampur-Sahaswan gharana, founded by Inayat Hussain Khan, carried a Gwalior-derived style toward a rounded, voluminous tone.

GHARANAS OF NORTH INDIA



Six houses of khayal: Gwalior, Agra, Kirana, Jaipur-Atrauli, Patiala, and Rampur-Sahaswan, each with its founding figure and its signature, all radiating from the courts that dispersed after 1857.

The instrumentalists built houses too. The Imdadkhani gharana, also called Etawah after the town of its origin and founded by the sitar and surbahar master Imdad Khan, developed the *gayaki ang*, a way of making the **sitar** imitate the human voice, bending the note across the fret as a singer bends a syllable.



The sitar: a long fretted neck over a gourd, with sympathetic strings that ring on their own beneath the played melody, and curved frets the player pulls sideways to slide from note to note.

A second instrumental house, the Maihar gharana of the multi-instrumentalist Allauddin Khan, would shortly carry this dhrupad-rooted instrumentalism to Ravi Shankar, Ali Akbar Khan, and, through them, to the world; Chapter 21 picks up that thread. What all these houses guarded, vocal and instrumental alike, was a distinction the century had inherited and now made canonical: dhrupad, the older form, weighty and unadorned, sung to the pakhawaj; and khayal, the newer, more pliable form, ornamented and improvisatory, riding the tabla. By the middle of the nineteenth century khayal was the living mainstream and dhrupad the honored elder, and a gharana's identity was, above all, its answer to the question of how a khayal should be sung.

FIGURE

The Tawaif's Paradox

Through the eighteenth and nineteenth centuries, some of the finest musicians in North India were women that respectable history preferred to forget. The tawaif were the courtesans of the successor courts, above all Lucknow: highly trained professional artists who commanded khayal, thumri, ghazal, dance, and Urdu poetry, and to whose salons young noblemen were sent to acquire manners and taste. They were often the wealthiest and most educated women of their society.

Then the ground shifted under them. Colonial "anti-naught" campaigns recast the courtesan as a common prostitute, and the twentieth-century reformers who wanted classical music respectable, and its performers male and middle-class, cleaned up the repertoire and handed it to men. The women who had carried thumri and much of khayal were written out of the tradition they had preserved.

One of them stepped instead toward the future. In 1902 a Calcutta courtesan named Gauhar Jaan sang into a recording horn for the first time, becoming Asia's first great recording star. Chapter 18 tells her story; the machine that made it possible would remake everything.

— The Trinity of Thanjavur

South India codified differently. The Carnatic tradition did not organize itself around performing lineages in quite the way the North did; instead it crystallized around composers, three of whom lived within a few miles and

a few years of one another in the Kaveri delta and between them wrote the permanent repertoire. The three known as the Carnatic Trinity, Tyagaraja, Muthuswami Dikshitar, and Syama Sastri, were all born in the temple town of Thiruvavur in the Thanjavur country in the second half of the eighteenth century. They were contemporaries who did not collaborate, founded no joint school, and held different ideas of what music was for. What they shared was a moment and a form, and what they left behind became the curriculum.

Codification in the South had in fact begun two centuries earlier, with a saint the tradition calls its grandsire. Purandara Dasa, who died around 1564, built the graded pedagogy that every Carnatic student still climbs: the first finger exercises, the sarali varisai and janta varisai and the alankaras, all set in a single scale, Mayamalavagowla, chosen because its intervals train the hand and the ear at once. Before the Trinity wrote the repertoire, Purandara Dasa had built the ladder up to it. That a beginner in Chennai today starts almost exactly where a beginner started four hundred years ago is codification of the most durable kind.

The central form was the **kriti**, a devotional song in three parts: the pallavi, the opening theme; the anupallavi, a second section reaching into the upper register; and the charanam, a longer closing stanza that often gathers the melody of the anupallavi back into itself. Into that compact architecture a composer could fold an entire raga, a theological argument, and his own embedded signature.

Tyagaraja, the most beloved of the three, was a devotee of the god Rama who composed in Telugu, his mother tongue, and in Sanskrit, and whose songs have the intimacy of talk with a familiar deity, by turns urgent and tender, sometimes openly reproachful. Tradition says he wrote twenty-four thousand kritis. About seven hundred authenticated ones survive, and the twenty-four thousand is best understood as devotional arithmetic, a way of saying the number was beyond counting. He is remembered too for refusing the patronage of the Thanjavur court, singing, in one famous kriti, that wealth brings no happiness. The story may be polished, but it fits a man who wanted music as worship rather than as employment.

Dikshitar was the learned one. He had lived in Varanasi in the north, absorbed tantric practice and something of the dhrupad style, and composed in dense, deliberate Sanskrit at a slow gait modeled on the vina. His distinction was not, as older accounts claim, a wider “harmonic” language, a phrase that means little in a purely melodic tradition. It was his systematic

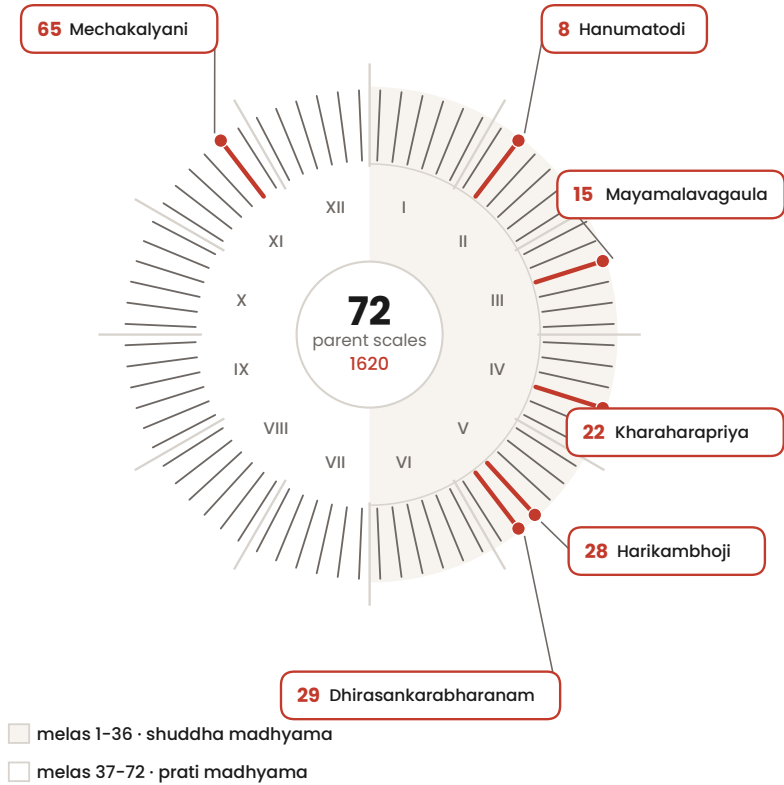
coverage of the rare and difficult scales, the vivadi melas that other composers avoided, and his readiness to look outward. During the years the British garrison bands played their marches and hymns in the south, Dikshitar wrote a set of pieces called nottusvara sahitya, Carnatic songs fitted to Western tunes. Several are literal contrafacta. The British anthem “God Save the King” became, in his hands, a Sanskrit hymn to the goddess, “Santatam Pahimam.” One of the canonical masters of the tradition, at the very moment it was being codified, was quietly writing English band music into it.

Syama Sastri, the third, left the smallest body of work and perhaps the most concentrated: goddess-centered songs of great emotional pressure, famous for their command of the limping misra chapu rhythm. Chapter 4 laid out the raga theory these three inherited; what they did was turn it into songs so complete that to learn them is to learn the system.

— Seventy-Two Ladders: the Melakarta Grid

The Carnatic south also produced the single clearest piece of musical codification anywhere in this book: a grid of every possible parent scale. The system is called **melakarta**, and it is a work of combinatorial imagination. Fix the tonic Sa and the fifth Pa, as Indian tuning does; allow the remaining scale degrees their permitted higher and lower positions; and the mathematics yields exactly seventy-two complete, seven-note parent scales, each capable of generating a family of ragas. The theorist Venkatamakhin worked out the combinatorial scheme in his *Chaturdandi Prakashika* at the Thanjavur court around 1620, though in his own text many of the seventy-two were still theoretical possibilities rather than living ragas. The names now attached to them, each encoding its own number through a syllable code hidden in the first letters of the title, come from the later tradition of the *Sangraha Chudamani* in the eighteenth century. The figure lays out the whole scheme.

THE SEVENTY-TWO MELAKARTA



The seventy-two melakarta: the two halves of the scheme, one with the natural fourth and one with the sharpened fourth, each generating thirty-six complete parent scales from the permitted positions of the remaining notes.

The point of the grid is that it is exhaustive. Where a performing tradition remembers only the scales that happen to have music in them, the melakarta scheme maps the entire space of the possible, including scales that no one had yet used, and dares composers to go and fill the empty rooms. It is codification as cartography. The North took the opposite path. Its parent-scale scheme, the ten thaats that Chapter 19 credits to the reformer Bhatkhande, is a loose practical sorting of ragas actually in use, admittedly imperfect, rather than a closed combinatorial map. Two traditions, two theories of what a system is for.

— Persia Writes the Radif

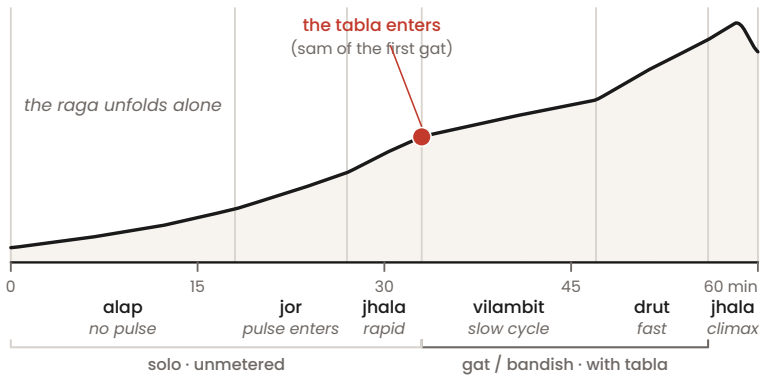
In Persia the codifying work fell to a single family. The **radif**, the word means order, sequence, a row of soldiers or of trees, is the organized corpus of melodic material that constitutes the vocabulary of Persian classical music, grouped into the twelve modal systems, seven principal dastgah and five satellite avaz, that a musician must know. It was fixed in its transmitted form under the Qajar dynasty in the nineteenth century by Mirza Abdollah, who lived from 1843 to 1918 and was a master of the tar and the setar. He did not invent it alone or from nothing. His father, Aqa Ali Akbar Farahani, had been the leading tar player at the court of Naser al-Din Shah, and his brother Mirza Hossein-Qoli shared the labor; the radif is a family's distillation of what it had received.

As Mirza Abdollah organized it, the radif consists of some two hundred and fifty short melodic units called **gusheh**, each a characteristic cell that defines the mood of one particular corner of a dastgah. A performer moves through the gusheh in a broadly fixed order, rising in register toward a climax and returning by a cadential turn, but the ornamentation, the pacing, the weight given to each unit, and the choice of when to linger and when to move on are improvised afresh every single time.

*The radif is the map, but the journey through
the map is different every time.*

The figure traces that journey: the slow opening in the low register, the step-by-step ascent, the peak called the *owj*, and the cadential return called the *forud*. The ethnomusicologist Bruno Nettl, who spent decades studying this repertoire, described the radif as exactly this kind of thing, a body of material learned by heart and then never simply reproduced but used, leaned on, departed from. And there was urgency behind the fixing of it. The Qajar century was one of pressure, Russian armies to the north, British interests to the south, and among educated Persians a genuine fear for the survival of their culture. To write the radif down and drill it into students was an act of cultural assertion, a way of saying: this is what we know, this is how we know it, this is what makes it ours.

THE SHAPE OF A HINDUSTANI RECITAL · ~60 MINUTES



The shape of an improvised Persian performance: the low daramad, the patient climb through the gusheh, the climactic owj at the top of the register, and the forud that brings the singer home, the same arc that governs a Hindustani exposition.

The seven principal dastgah each have their own character and their own gravity, from the plaintive, ubiquitous Shur to the bright ceremony of Mahur and the tense drama of Chahargah, and the radif of Mirza Abdollah remains the reference version taught in Iranian conservatories today, recognized in 2009 as a treasure of the world's intangible heritage. That a corpus fixed by one family in a single Tehran generation became the spine of a national art is a measure of how completely a codifying moment can capture a tradition.

— The Ottoman Autumn

The Ottoman world codified in the key of autumn, a last magnificent flowering as the empire began the long decline that would end in its collapse. The summit figure is Hammamizade Ismail Dede Efendi, born in 1778, a Mevlevi dervish and a palace composer at once, master of both the sacred ceremony of the whirling dervishes and the secular court suite. His fasıl

compositions, extended suites that move through a single makam in a set sequence of forms, and the huge rhythmic cycles called *usul*, some running to dozens of beats that a musician must hold in mind while improvising, mark the high refinement of the tradition. Dede Efendi died in 1846 of cholera at Mina, on the pilgrimage to Mecca, an old master of the classical style gone among the pilgrims in the very year the musical world was tilting westward.

Westward was the pull. The nineteenth-century Ottoman court, reforming its army along European lines, reformed its music too, and the older histories garble the moment by speaking of “the Donizetti brothers.” Only one Donizetti came east. Giuseppe Donizetti, elder brother of the opera composer Gaetano, arrived in Istanbul in 1828 as Instructor General of the Imperial Ottoman Music, trained the new Western-style bands, and wrote the sultan’s anthem. This is the same decade in which Dikshitar was setting British band tunes in the Tamil south, and the parallel is not a coincidence. The classical traditions of Asia were all, in their different ways, answering the new cultural prestige of Europe.

But the Ottoman autumn also produced two of the most important tools of preservation in this whole story, and both point forward. The first was notation. An Armenian church musician, Hampartsum Limondjian, devised in the early nineteenth century a compact notation, still called Hampartsum notation after him, that let scribes fix the classical repertoire on paper in quantities the oral tradition alone could never hold. The second was the microphone. Tanburi Cemil Bey, the supreme instrumental virtuoso of the late Ottoman age, began recording around 1905, and his discs of solo *taksim* are the earliest great recorded document of the tradition, the point where codification stops being only a matter of manuscript and memory and becomes a matter of sound captured whole. Chapter 18 follows that machine as it remakes the musical world.

— Beijing’s New Opera

China’s codification in this period happened onstage. In 1790, to celebrate the Qianlong emperor’s eightieth birthday, opera troupes from Anhui province traveled to Beijing to perform, and stayed. Over the following decades their style fused with elements from Hubei and from the capital’s own tastes into a new form, *jingju*, the opera of the capital, which the world would come to call Peking opera. Its music rests on two great families of

melody, *erhuang* for the graver and more meditative scenes, *xipi* for the brighter and more agitated, and on a percussion framework of ferocious precision that binds together singers, instrumentalists, and acrobats.

The form hardened into system across the nineteenth century. It settled into a fixed set of role types, the dignified *sheng*, the female *dan*, the painted-face *jing*, the comic *chou*, each with its own vocal production, its movement vocabulary, and its painted-face conventions signaling character at a glance. The female roles were sung in falsetto by male actors, an art that would find its supreme exponent in the great *dan* Mei Lanfang at the century's turn. *Jingju* also won a culture war. It was one of the "flower" forms, the *huabu*, the vigorous popular operas that Qing connoisseurs contrasted, often with disdain, against the refined "elegant" *kunqu*, the *yabu*, whose story Chapter 11 told. The flower won. By the end of the nineteenth century the elegant old opera had been pushed to the margins, and the new capital opera, with its systematic pedagogy and its knowledgeable audiences, had become the dominant theatrical music of the Chinese empire.

Underneath the singing ran the percussion, a battery of gongs, clappers, and drums directed by a single lead player whose patterns cued every entrance, gesture, and somersault, so that orchestra and acrobats moved as one nervous system. Learning all of it took a childhood. The great troupes ran training schools of near-military severity, and the Beijing audience that watched the result was expert enough to judge a performance by the tilt of a sleeve or the placement of one sustained note. A form with that kind of pedagogy and that kind of audience had, by definition, become a classical tradition.

— What Codification Costs

There is a cost to all of this, and it is worth naming plainly. Traditions that harden around canonical forms can stop generating new ones; the energy that once went into invention shifts toward the perfection of what already exists. That is not simply a loss. The depth of interpretation available to a musician who has mastered a closed system is something more fluid traditions cannot reach. A Kirana singer who spends twenty minutes on the lower reaches of a single *raga* is doing something that requires both the tradition's codified vocabulary and a lifetime of private practice with it, and neither alone would be sufficient. The classical zenith, in each of these worlds, was the moment the accumulated vocabulary grew rich enough

that a master could spend an entire performance exploring a fraction of it and still not exhaust what it had to offer.

It is worth noticing what these four codifications shared beneath their different surfaces. In every case the accumulation of a tradition had grown too large for casual memory, and in every case the response was to build a structure the memory could hold: a lineage in the North, a repertoire in the South, a corpus in Persia, a set of forms and role-types in Istanbul and Beijing. The structures differ because the traditions differ, but the impulse is identical, the impulse of any craft that has become too rich to carry loosely. The long nineteenth century was when much of the East, in several places at once, decided to write its music down in the widest sense of writing: to fix it, to teach it, and to defend it.

But the harder cost was human, and it fell on the people the canon excluded. The codifiers decided who counted as a legitimate carrier of the tradition, and their decisions ran along the lines of caste, of respectability, and above all of gender. The women who had kept khayal and thumri alive through the nineteenth century, the tawaif of the sidebar above, were written out within a generation by reformers who wanted the music respectable and the musicians men. Chapter 19 tells that story of purification, and Chapter 21 asks who, in the end, actually kept the flame. Meanwhile the next force to reshape everything was already turning: the recording machine that caught Cemil Bey's taksim and, in a Calcutta hotel room in 1902, the voice of a courtesan named Gauhar Jaan, whom Chapter 18 will meet.

Return, at the last, to the riverbank at Thiruvaiyaru, the hundreds of strangers singing five fixed songs in flawless unison. That unison is what codification is for, and it is also what codification costs: a music so thoroughly agreed upon that anyone who has done the work can join it anywhere in the world, and a music that has decided, with some finality, what it is. The great traditions wrote their constitutions across the long nineteenth century, and we are still, every time we listen, living under them.

LISTENING NOTES

♪ **M.S. Subbulakshmi, the Tyagaraja Pancharatna kritis**

The five gems sung by the twentieth century's most famous Carnatic voice, in Telugu and Sanskrit; this is the fixed canon that the Thiruvaiyaru crowd sings in unison every

January.

♪ **Kesarbai Kerkar, khayal in the Jaipur–Atrauli style**

The great exponent of Alladiya Khan's demanding gharana; listen for the rolling, tightly woven line that makes a complex jod-raga hold together.

♪ **Dariush Talai, the Radif of Mirza Abdollah**

The codified Persian corpus played on tar and setar; hear how a fixed sequence of gusheh becomes, in performance, a freshly improvised journey with its own rise and return.

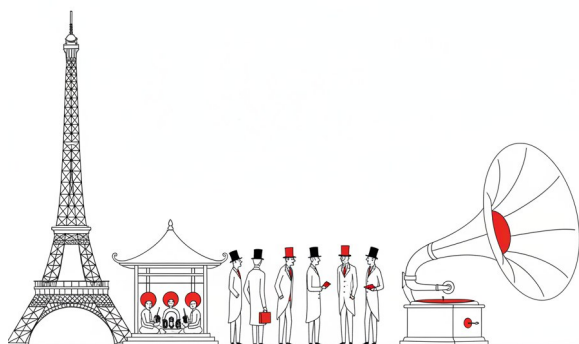
♪ **Tanburi Cemil Bey, taksim recordings from around 1905**

The earliest great recorded document of Ottoman art music; the tanbur alone, exploring a makam with a freedom that no notation ever caught.

♪ **Mei Lanfang, jingju arias**

The supreme dan of Peking opera, a male actor singing the female roles in falsetto; the sound of the codified capital opera at the moment it conquered China.





COLLISION AND EXCHANGE — CHAPTER 18

The World Discovers the East: The Fair, the Phonograph, and the Edge of the Map

At the Paris fair of 1889, a restless young Debussy stands in a replica Javanese village and hears the future of his own music. The discovery is real, deeply unequal, and it changes both sides for good.

1851 TO 1932

· PARIS, BERLIN, CALCUTTA, CAIRO

東洋

toyo · the East, as the West
named it

The sound reaches the visitor before the sight does. It comes from a compound of thatched houses raised on the Esplanade des Invalides, a shimmer of struck bronze that seems to hang in the July heat with no source, rising and thinning and folding back on itself. Inside the enclosure, on a

low platform, a Sundanese ensemble sits behind rows of gongs and metal keys, mallets moving in patterns that lock and release, while four young women in gilded headdresses turn through a court dance with their fingers bent back like new leaves. Parisians press against the railing. Most of them came to see the Eiffel Tower, three months old and painted the color of dried blood, the tallest thing anyone had built. They stay, some of them, for this: a music with no violins and no piano, no chords resolving the way chords are supposed to, that keeps circling and never seems to begin or end.

Among the people at the railing, on more than one afternoon that summer, is a French composer of twenty-six who has already been told he is the most gifted student of his generation and who is quietly sick of nearly everything he was taught. He does not take notes. He comes back, and back again.

This is the Exposition Universelle of 1889, and the encounter staged inside it, half by design and half by accident, is what this chapter is about. Chapter 14 left the story of Debussy and the gamelan hedged to a single sentence, a promise deferred. Here is the whole of it, and the larger event it belongs to.

For most of the century, the traffic Chapter 16 traced ran one way in the telling: Europe imagined it was carrying civilization outward along its shipping lanes. Between the Great Exhibition of 1851 in London and the Cairo Congress of 1932, that story grew a countercurrent. The West began, unevenly and often with breathtaking condescension, to actually listen to the music of Asia, and to build machines and disciplines to hold what it heard. The argument of this chapter is that the discovery was genuine and genuinely consequential; that it was conducted under a power imbalance so steep it bent almost everything it touched; and that its deepest result was not any scale a European borrowed but a slow, humbling lesson. The tools Europe brought to the encounter, its notation, its recording horn, its very category of the picturesque and the primitive, could hold only part of what they were aimed at. What the West believed it was discovering was the East. What it was actually discovering was the edge of its own map.

— Six Hectares of Empire

The Exposition Universelle opened on 6 May 1889, timed to the hundredth anniversary of the Revolution, a republic celebrating itself in iron and elec-

tric light. Before it closed at the end of October, roughly thirty-two million people passed through its gates, a staggering number for the age, though smaller than the wave of nearly fifty million who would come to the follow-up fair of 1900. They came to see turbines and telephones and the new tower. They came, whether or not they intended to, to hear music that no European concert hall would have programmed.

The fair's Colonial Section was, in the plain language of 1889, exactly what its name says. France was enlarging an empire in Southeast Asia, and the organizers assembled human beings to prove the point: performers from Java, from Annam, from Senegal, arranged less as artists than as living evidence of what the imperial enterprise had absorbed. Visitors walked a reconstructed Cairo street, watched Vietnamese theater, and crowded the *kampong javanais*, a mock Javanese village housing some seventy Indonesians brought from the Dutch East Indies. The musicians there played a Sundanese gamelan known as *Sari Oneng*, shipped from the Parakansalak tea plantation in the hills of West Java, and the four dancers who performed with it had been sent from the Mangkunegaran court at Solo. The historian Annegret Fauser, whose study of the fair's music has corrected a century of loose retelling, has shown how carefully the Dutch curated this village to be read as charming and safe, an empire's well-run garden.

The intended lesson was hierarchy: the world organized around a European center, with everyone else arranged at the margins as proof of European progress by contrast. But music has always been poor at staying inside the categories assigned to it. Not every visitor heard a curiosity. The critic Julien Tiersot, a serious folklorist who returned to the colonial pavilions repeatedly and wrote them up in a book called *Musiques pittoresques*, was among the more attentive and sympathetic listeners of his generation, straining to notate what he heard and admitting, more honestly than most, that his training left him short of the sounds. He reached, as everyone then did, for the vocabulary of the picturesque. He also kept coming back, which was itself a kind of argument.

The fairs had been manufacturing this experience since the Crystal Palace went up in 1851, and they went on doing it into the new century: Paris again in 1867 and 1878, Chicago's Columbian Exposition of 1893 with its Midway of Egyptian, Turkish, and Javanese villages, Paris once more in 1900. For the first time in history, a curious Parisian or a German professor or an English amateur could hear, in a single afternoon, music from a dozen traditions they would otherwise never have reached. The encounter

was concentrated, commercial, and profoundly unequal. It was also, for a few listeners, the most important thing that happened to them.

— Debussy in the Kampong

Claude Debussy was twenty-six the summer he first stood at that railing. He was not yet the composer he would become. He had won the Prix de Rome in 1884, and the five years since had done nothing to reconcile him to the machinery it certified: the rules of voice leading and harmonic progression and formal architecture that the Conservatoire existed to pass on. He was already restless against those rules. The gamelan gave him something to be restless toward.

What exactly he took from it has been argued over ever since, and the honest answer is that the argument cannot be closed. The popular claim, that the gamelan taught him the whole-tone scale, is almost certainly too neat. That scale already ran through the Russian composers he admired, and he had been loosening his own harmony along independent lines well before 1889. The influence was real but harder to pin than a borrowed row of notes. What the gamelan showed him was a way of building music from several melodic lines moving at once at different speeds, layered rather than stacked into chords, indifferent to the pull of tension and release that European music had made its whole organizing engine. That indifference was the revelation.

He was careful, in his own scattered comments, and those comments are the only ones worth quoting, because the sentences most often hung on him about skies glimpsed through leaves are of uncertain origin and best left aside. What he did put on record is enough. In a letter to his friend the writer Pierre Louÿs, Debussy recalled Javanese music that could express every shade of meaning, even unspeakable ones, and that made the Western tonic and dominant sound like empty phantoms. And writing in 1913, nearly a quarter-century after the fair, he insisted that Javanese music obeyed laws of counterpoint beside which Palestrina's looked like child's play, adding that European ears, left to themselves, might find their own music to be a rather barbarous noise. He heard the gamelan again at the 1900 exposition. When he published *Pagodes* in 1903, the first of the piano *Estampes*, the layered pentatonic bell-tones and the long ringing pedal notes were the nearest a European instrument had yet come to that shimmer on the Esplanade.

Debussy's engagement was not deep by any scholarly measure, and it points to a distinction that has occupied musicologists for decades: the difference between influence and **orientalism**. Edward Said's book of that name, published in 1978, gave scholars a way to see how the West's images of the East served Western needs more than they described Eastern realities, and the framework has been genuinely useful when turned on music. Consider the case that seems to prove the crude version and instead sharpens the subtle one. Giacomo Puccini did not invent fake Chinese music for *Turandot*; he quoted a real folk song, *Mo Li Hua*, the Jasmine Flower, and *Madama Butterfly* is stitched through with authentic Japanese melodies. The material was often genuine. The orientalism lay not in forgery but in function: a real tune lifted out of its world, drained of what it meant to the people who sang it, and set to work as a costume, a sign that pointed at a European fantasy of the Orient rather than at any living tradition. That is the more damning charge, and the more accurate one.

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The framework has limits too, and Debussy is one of them. So is Colin McPhee, the Canadian composer who spent years in Bali in the 1930s, learned to play its instruments, transcribed hundreds of pieces, and wrote in *A House in Bali* one of the most honest accounts we have of a Western musician trying to understand a music not his own. He was also, unavoidably, a man of empire's century, present in Bali because the colonial order made him possible. Both things are true at once, and the scholarship of Gerry Farrell, among others, has taught the field to hold them together rather than collapse one into the other.

--- The Scholars Arrive: Comparative Musicology

While the composers listened for what they could use, a new discipline set out to measure. **Comparative musicology**, Vergleichende Musikwis-

senschaft, took shape in the closing decades of the century, and its founding act was a tool for hearing without prejudice. In 1885 the English phonetician Alexander J. Ellis published *On the Musical Scales of Various Nations* and gave the field the **cent**, a unit dividing the octave into twelve hundred equal parts, fine enough to describe any tuning on earth without first forcing it onto a European keyboard. For the first time a scholar could write that a Thai octave divided into seven near-equal steps or a slendro tuning fell between the cracks of the piano, and mean something exact.

The Germans built the institutions. Carl Stumpf, a philosopher of tone in Berlin, transcribed a visiting group of Bella Coola people by ear in 1886, working from live performance with no machine, and came away convinced that human hearing and human memory were too fallible for the task. The remedy arrived on wax. In 1890 the American Jesse Walter Fewkes carried a phonograph into the field and recorded Passamaquoddy singers in Maine, the first field recordings made anywhere for the study of music. The Vienna Phonogrammarchiv, the world's first sound archive, was founded in 1899. A year later Stumpf established the Berlin Phonogramm-Archiv, and its founding holdings were the cylinders cut in September 1900 from a Siamese court troupe visiting the city, the same piphat tradition Chapter 14 described. Erich Moritz von Hornbostel took over the Berlin archive around 1905 and ran it until the 1930s, growing it toward thirty thousand cylinders of the world's music. In 1914, with Curt Sachs, he published the classification of instruments by how they make sound, idiophones, membranophones, chordophones, aerophones, that is still used in modified form and still bears their names, **Hornbostel-Sachs**.

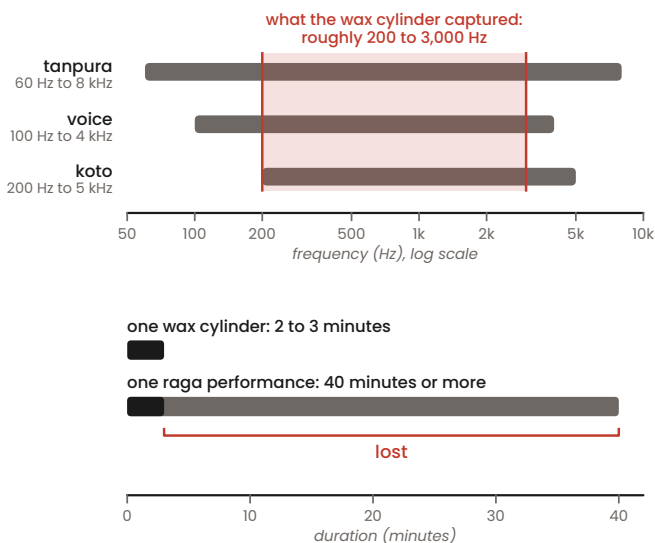
This was real scholarship, and it produced real knowledge. It also carried its century's assumptions inside the wax: convictions about which musics were primitive and which advanced, which traditions were frozen relics and which capable of development, whether the music of Asia possessed theory or only inherited custom. The cent could measure an interval to a hair. It could not measure the value the scholar had already assigned to the people who sang it.

— What the Cylinder Could Not Hear

The wax cylinder preserved something irreplaceable and deformed it in the same motion. A cylinder held about two minutes of sound, so musicians were asked to shorten long pieces, or to choose short ones, or to stop

before an idea had finished. They were asked to play louder than they ever would, to throw the sound into a brass horn. The sessions happened in hotels and exposition halls that bore no relation to the courtyards and shrines and salons the music was built for. The low register came back nearly inaudible; the high frequencies came back brittle and thin. What survived was true and badly partial, and the losses were not random. They favored, systematically, whatever the machine could grab, and discarded, systematically, whatever it could not. A drone that filled a room became a faint hum. An ornament that carried the whole meaning of a phrase vanished under surface noise.

THE WAX CYLINDER'S NARROW WINDOW

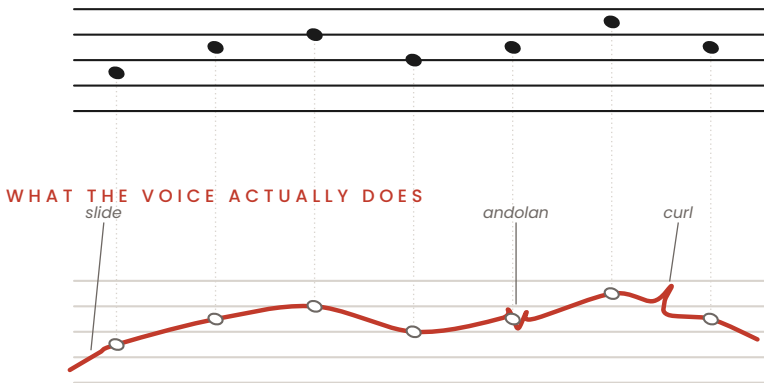


What the wax cylinder kept and what it lost: two minutes of capacity, a horn that favored the middle of the range, and a systematic thinning of drone, low register, and fine ornament, so that the surviving document tilts toward what the technology could hear.

Notation was the older machine, and it failed along parallel lines. European staff notation is superb at fixing pitch inside the twelve equal semitones and decent at rhythm organized around a steady beat. It is poor at

the intervals between those semitones, poor at the sliding ornamental vocabulary that carries the expressive weight of so much Asian music, and nearly helpless before the relationship between a written skeleton and the living elaboration a performer grows from it. A North Indian raga transcribed onto a staff looks, on the page, like a plain little melody. It has lost the gamakas, the slides and shakes and touched grace notes that are not decoration but identity, the difference between the raga and some other handful of notes. The map keeps the coastline and throws away the sea.

WHAT THE STAFF RECORDS

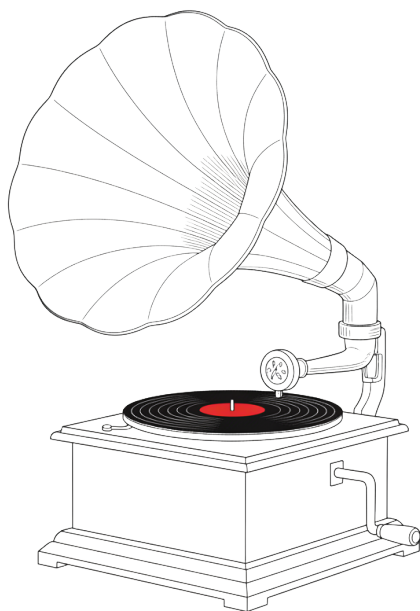


A raga in two renderings: the flat staff transcription a Victorian collector would have published, set against the true contour of its gamakas, the continuous bends and touched ornaments that the notation silently deletes.

The best of the transcribers knew it. Arthur Henry Fox Strangways, whose book *The Music of Hindostan* appeared in 1914 and stood as a standard reference for decades, wrote at length about the inadequacy of his own tools, proposed new symbols, and stated plainly that a transcription was a map and not the territory. His humility did not save his method; a translation still changes what it translates. But it marked the beginning of a Western scholarship honest enough to distrust itself, which is where any real understanding had to start.

— Gauhar Jaan Sings Into the Horn

The scholars imagined they were building the archive that mattered. They were wrong. The instrument that transformed the music of Asia was not the Phonogramm-Archiv but the record shop, and it arrived on a commercial expedition, not an academic one. In 1902 Fred Gaisberg, a young recording engineer for the Gramophone and Typewriter Company, reached Calcutta with crates of wax blanks and a mission to find voices that would sell discs to the largest market the company could imagine.



The recording horn of 1902: a wide brass cone funneling sound to a vibrating diaphragm that cut the groove directly into a wax master, an unforgiving mouth that rewarded whoever could project a whole art into three minutes.

Picture the room. A Calcutta hotel suite, its windows shut against the street, a great flaring horn mounted on a stand, and behind it the cutting lathe. Into that horn, in November 1902, the courtesan-singer Gauhar Jaan performed a *khayal* in *raga Jogiya*, an art built to unfold across an hour compressed by the machine to roughly three minutes, and closed it with a spoken line so the pressing engineers in Germany could label the matrix

by ear: "My name is Gauhar Jaan!" Gaisberg's party cut more than five hundred masters in about six weeks. The discs were pressed in Hanover and on sale across India by the spring of 1903.

That six weeks did more to reshape Asian music than every cent-measurement in Berlin. Recording created stars where there had been reputations, a mass paying audience where there had been patrons, and a brutal new discipline of form: the three-minute side, which taught a generation of musicians to fold vast improvised architectures into a span a machine would hold. The commercial recording industry was the true engine of the encounter, and its Indian operation, the ancestor of the company later called Saregama, is the same lineage that Chapter 22 finds a century on, monetizing that century of masters as streams. Chapter 16 called the gramophone the last of the ships that carried music across the world. This was the cargo it carried best.

FIGURE

Gauhar Jaan

Born Angelina Yeoward in 1873, of Armenian and Indian descent, she converted with her mother, took the name Gauhar Jaan, and trained into the tawaif world of the northern courtesan-musicians, the salon artists who carried khayal, thumri, and the high vocal repertoire through the nineteenth century.

When Gaisberg needed a voice for his 1902 sessions, hers was the obvious choice: she was already the most celebrated singer in Calcutta, commanding a fee of some three thousand rupees a session, a fortune then. Over the following decade she recorded around six hundred sides in more than ten languages, becoming the first recording star Asia produced and the template for every voice the industry would sell after her.

Her end was not kind. Litigation, debt, and a collapsing court economy wore down the fortune and the fame, and she died in 1930 in relative obscurity in Mysore, in service to a princely patron. The voice on the discs never aged. It is still the sound of the moment Asian music learned it could be bought and carried anywhere.

— The East Discovers Back

The tidy story of a West discovering a passive East breaks down the moment you look for the Asian agents, because they were everywhere, and many of them were doing the discovering on purpose. In Calcutta the musicologist Sourindro Mohun Tagore, born in 1840, spent the 1870s and 1880s curating collections of Indian instruments and shipping them, deliberately, to the Metropolitan Museum in New York, to the Brussels Conservatory, to the Royal College of Music in London. This was reverse transmission, an Indian scholar managing Europe's education from the Indian side, deciding what the West would be permitted to see and hear.

His distant kinsman Rabindranath Tagore did something larger. He won the Nobel Prize in Literature in 1913, the first non-European so honored, and around his poetry he built **Rabindra Sangeet**, a body of more than two thousand songs that fused Hindustani raga, Bengali folk idiom, and touches of the Western music he had heard abroad into something wholly his own. It was the East not merely discovered but self-composing, and exporting itself on its own terms.

The systematizers were at work in the same decades. Vishnu Narayan Bhatkhande crossed India collecting and notating ragas and sorting them into ten parent scales, the thaats that Chapter 19 lays out in full, and convened the first of the All India Music Conferences in 1916. His project was partly a rebuttal: he meant to prove that Hindustani music rested on a rigorous theory, against the British administrators who, since William Jones first wrote on Indian modes in the 1790s, had too often dismissed it as improvised vagueness. In Japan the scholar Uehara Rokushiro published his account of the in and yo scales in 1895, an indigenous theory of the two pentatonic frameworks underlying Japanese music, work often miscredited to his contemporary Tanaka Shohei, who was in fact in Germany pursuing just intonation and building a keyboard he called the enharmonium. In China, Wang Guangqi studied musicology in Germany through the 1920s and wrote comparative work that took the Chinese and European traditions equally seriously as objects of thought; he died in 1936, too young and too soon to be as widely known as he deserves.

The performers traveled too, and some of them chose their audiences deliberately. Inayat Khan, a trained Indian classical vocalist from a family of court musicians, left India in 1910 and toured the United States and Europe for years, playing the vina and singing for Western audiences and eventu-

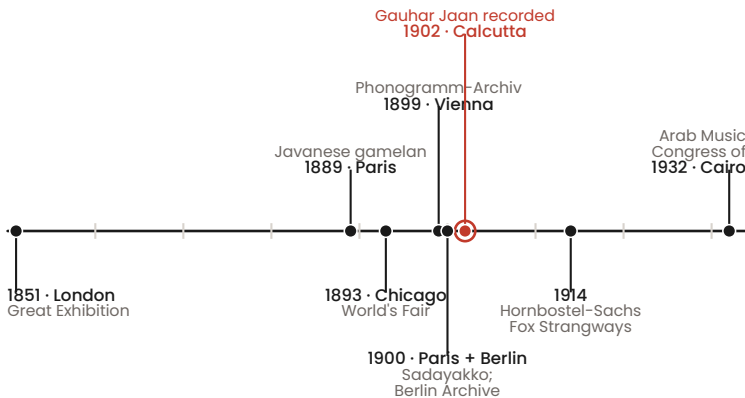
ally setting his music aside to teach a form of Sufism to Western students. He was not an exhibit behind a railing. He was a musician who booked his own halls, chose his own repertoire, and decided for himself what of his tradition to offer and what to keep. At the 1900 Paris fair, the Japanese actress Sadayakko and her husband Kawakami's troupe had drawn exactly the circle of artists around Debussy that was hungriest for something outside the Conservatoire, another reminder that the flow of fascination ran in both directions and that Asian performers were shaping the encounter, not just supplying its raw material.

None of this was purely defensive. These were people asking, with the best tools available on either side of the encounter, a question the fairs had forced into the open: what, exactly, is our music, and how do we hold it. Chapter 19 shows what happened when newly independent nations tried to answer that question with the power of the state behind them.

— Cairo, 1932: the Summit

The arc that began at a colonial pavilion ends, forty-three years later, with the terms of the encounter turned nearly inside out.

THE WEST ENCOUNTERS EASTERN MUSIC · 1851 TO 1932



The long encounter at a glance: London 1851, Paris 1889 with its Sundanese gamelan, Chicago 1893, the Vienna and Berlin sound archives of 1899 and 1900, Gaisberg and Gauhar Jaan in Calcutta in 1902, Rabindranath's Nobel in 1913, the Hornbostel-Sachs system and Fox Strangways in 1914, and the Cairo Congress of 1932 where the direction of study reversed.

From 14 March to 3 April 1932, King Fuad I of Egypt convened the Cairo Congress of Arab Music, and this time the Europeans came as guests. Béla Bartók traveled from Budapest, Paul Hindemith from Berlin, and with them came the comparative musicologists whose archives had been built on other people's cylinders, Erich von Hornbostel, Curt Sachs, Robert Lachmann, alongside the Scottish scholar of Arab music Henry George Farmer. The congress broke into committees on scale, on the modes, on rhythm, on instruments, on musical education, and on recording, and its engineers cut more than a hundred and sixty discs of maqam performance, the largest single act of documentation the tradition had yet received.

The debates cut to the marrow. Should Arab music adopt equal temperament, take up Western harmony, teach itself from staff notation, reorganize its conservatories on the European model? Some of the European delegates pressed for exactly that, in the sincere belief that they were offering progress. The assembled Arab musicians and a number of the visiting scholars pushed back, and the congress finally chose, on the essential points, to protect the microtonal intervals and the heterophonic texture that made the music itself. In 1889 the people of Java had been arranged behind a railing for Parisians to inspect. In 1932 an Arab monarch summoned Europe's foremost experts to sit in committee and study Arab music on Arab soil, at Arab invitation, and to be told, courteously, where their categories did not apply. The recording horn that Gaisberg had aimed at Gauhar Jaan was now aimed by a tradition at itself, on purpose, to keep what it chose to keep.

The world had set out to discover the East and had found, instead, the far more useful thing: the exact place where its own map ran out, the point at which its notation, its temperament, and its confident hierarchy of the advanced and the primitive simply stopped describing anything. That is not a comfortable discovery for a civilization sure of its own centrality. It was, however, the beginning of something. The categories that failed at Cairo would be renegotiated with the force of new nations behind them after 1947 and 1949, the subject of Chapter 19; they would be tested again

when a Beatle carried a sitar into a recording studio, the story of Chapter 20; and they would be tested a last time when the machines of Chapter 22 made every tradition on earth instantly audible and understood it no better than the crowds at the railing did. The music kept moving in both directions, as it always had, indifferent to the borders drawn around it, waiting to be heard by whoever was willing to stop and actually listen.

LISTENING NOTES

♪ **Gauhar Jaan, early Gramophone Company sides recorded 1902 to 1910**

Asia's first recording star at the birth of the industry; hear a vast vocal art folded into three minutes, and the spoken signature at the end that was a labeling trick before it was a legend.

♪ **Claude Debussy, Pagodes from Estampes (1903)**

The gamelan translated to a Paris piano; listen for the stacked pentatonic bell-tones over long ringing pedal notes, an attempt to hold a bronze shimmer in the wrong material and nearly succeeding.

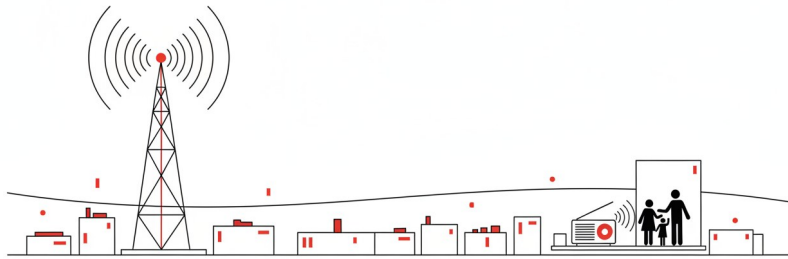
♪ **Nonesuch Explorer Series, Java: Court Gamelan**

A clean modern recording of the sound the 1889 crowd pressed close to hear; follow the strata, the skeletal balungan under the racing elaboration, and the great gong closing each cycle.

♪ **The Berlin Phonogramm-Archiv, historical wax-cylinder recordings (reissued anthologies)**

The founding collection of comparative musicology as it actually sounds; through the surface hiss you can hear both what the machine preserved and, in the thinness, exactly what it could not.





COLLISION AND EXCHANGE — CHAPTER 19

Independence and Renaissance: New Nations, Old Music

New nations inherit old musics. After 1947 and 1949, India and China each had to decide what their traditions were for, and the answers, radio ministries, conservatories, and one catastrophic decade, still shape everything heard today.

1947 TO 1990

• DELHI, KARACHI, BEIJING, SHANGHAI

स्वराज

swaraj • self-rule

On the eve of the fifteenth of August, 1947, as British rule ended across the subcontinent, a shehnai player from Bihar named Bismillah Khan raised his double reed and played. The shehnai had always been an instrument of thresholds: weddings, temple gates, the ceremonial naubat that once marked the hours at a Mughal court. Now it marked the largest threshold the country had ever crossed. His playing went out over All India Radio

into millions of homes at the same moment, and the pairing held the whole future in miniature. An ancient ceremonial sound. A newly sovereign nation. And a state broadcaster carrying the one to the other.

That broadcaster was not new, and this is the first thing to correct in the story usually told. All India Radio did not become a state instrument at independence. Broadcasting in India had been government-run since 1930, when the colonial administration took over a bankrupt private company and created the Indian State Broadcasting Service; it was renamed All India Radio in 1936, and given the Sanskrit name *Akashvani*, voice from the sky, in 1956. The apparatus the free nation inherited was already a centralized monopoly over the air. What changed in 1947 was not who owned the microphone. What changed was the question of what should come out of it.

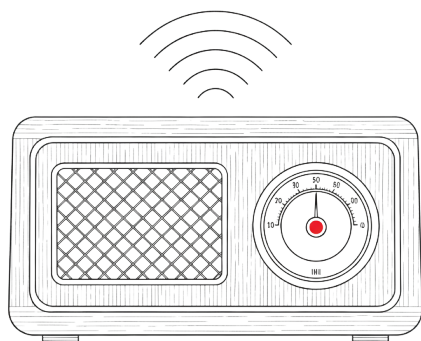
The complication ran deeper than any institution. Two centuries of colonial rule had done something strange to how educated Indians heard their own music. British administrators and scholars had, on one side, filed it under primitive and unscientific, a music lacking harmony, lacking notation, lacking everything a Victorian took for granted as progress. On the other they had romanticized selected fragments of it for the drawing rooms of empire, printing Hindoo airs with piano accompaniment that drained the microtones out. The result was that a great many Indians reached independence knowing European classical music better than the raga system their own grandparents had grown up inside, proud of that system in the abstract and unsure what it was worth in a modernizing world. Building a cultural policy from that position was never going to be simple.

That question of what the airwaves should carry turned out to be inseparable from every other question the new country was asking. Cultural identity and political sovereignty were the same knot. You could not separate the question of who governed the country from the question of what the country's music was. This chapter follows that knot through the two largest new states of the mid-century, India, free in 1947, and the People's Republic of China, founded in 1949, as each built radios, academies, and conservatories to settle what its inherited sound was for. The instruments they built still shape what the world hears. And the deepest lesson of the period is that none of it was creation from nothing. The music the institutions claimed to revive had never actually stopped.

You could not separate the question of who governed the country from the question of what the country's music was.

— The Minister Who Banned Film Songs

For a generation of Indian musicians, the most powerful patron in the country was a wooden box in the corner of a room, and the most consequential critic was the man who decided what would come out of it. After independence, All India Radio became the single largest employer of classical musicians the subcontinent had ever known. A staff-artist post, graded by an audition board that sorted performers into ranks from B up to the coveted A and later A-Top, was often the difference between a professional life and a lost vocation, at the very moment when the princely courts that had paid musicians for centuries were being dissolved into the republic. Radio also recorded, and so rescued, performances that would otherwise have vanished with the performers who gave them. The valve set in the figure was, for this generation, the whole apparatus of patronage compressed into furniture.



The valve radio set: for mid-century South Asia the defining musical object, a wooden cabinet through which a state ministry decided which sounds a nation would be allowed to hear.

The collapse that made radio so powerful had a date, or rather a cluster of them. Between 1947 and 1949 the more than five hundred princely states that had long been the traditional employers of India's musicians were integrated into the union, and the durbar patronage that had sustained the descendants of a Tansen for four centuries simply ended. A court musician's son who might once have inherited a sinecure now needed a salary, and there were only two institutions large enough to pay one. The Gramophone Company of India, direct descendant of the operation that had recorded Gauhar Jaan in 1902 and that Chapter 18 followed, pressed and sold the discs; All India Radio commissioned the broadcasts and the weekly National Programme. Between them they became the successor court, and like any court they set the terms.

Balvantray Gopalji Keskar became Minister of Information and Broadcasting in 1952 and held the post for a decade, and he had firm convictions about what a self-respecting nation should broadcast. Hindi film songs, then as now the most popular music in India, struck him as cheap and Westernized, beneath the dignity of the state's airwaves. He cut them drastically, and then in effect banned them, and filled the vacated hours with classical music, whose airtime he expanded enormously. He also enforced All India Radio's standing ban on the harmonium, the reed organ that Chapter 16 followed into India. Its fixed, equal-tempered keys could not bend a note or sound the microtones between the twelve, and to the reformers it was a colonial import that flattened everything subtle in a raga. The instrument had been barred from the AIR studios since 1940, and Keskar kept the door shut; a partial rehabilitation would not come until 1971.

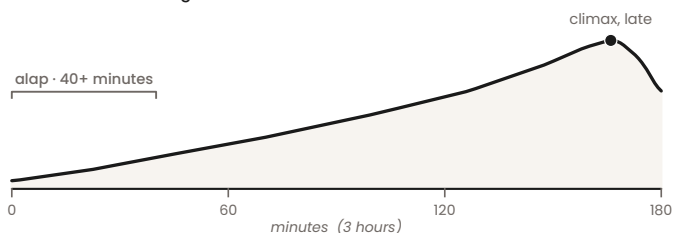
There was a real argument inside the philistine one. Keskar genuinely widened the audience for Hindustani and Carnatic music, funded a National Programme of Music from 1952 that put the country's finest performers before the whole nation on a single weekly evening, and gave classical musicians a security they had not known since the courts fell. But he had misread his listeners badly. Told they could not have film songs from Delhi, Indians simply turned the dial, and where they turned is the subject of the sidebar.

Radio did something subtler to the music itself, something no ministry intended and no ban could fix. A raga performance, in a concert hall or a princely chamber, could unfold for hours. The alap alone, the slow un-metered opening in which a musician lets the raga assemble itself note by note, might run longer than an entire radio program before a drum was

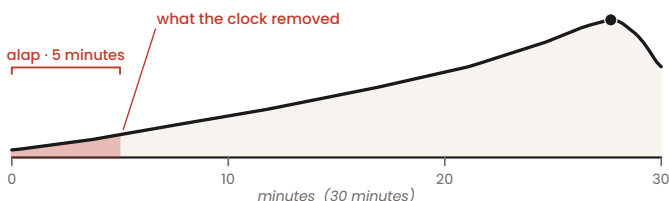
ever struck. Broadcasting ran on slots. A raga that breathed across ninety minutes had to be squeezed into thirty, or thirteen, and musicians learned to give the shape of the thing without the time the shape was made of, hitting the landmarks and cutting the exploration many of them held to be the heart of the art. As the figure lays it out, the multi-hour arc and the broadcast slot are not one object at two sizes. They are different objects. Whether the change was damage or healthy adaptation was argued loudly through the whole second half of the century, and the honest answer is that it was both.

THE SAME SHAPE, TWO CLOCKS

the mehfil: an evening



the All India Radio slot



the form survived; its sense of time did not

The broadcast squeeze: a traditional raga's slow arc, from an unmetred alap through the rhythmic jor and jhala to a fast composed climax, set against the thirty-minute radio slot that forced musicians to keep the landmarks and cut the exploration between them.

FIGURE

B.V. Keskar and Radio Ceylon

When the film song vanished from All India Radio, it did not vanish from the air. It moved offshore. Radio Ceylon, broadcasting from Colombo, ran a commercial service happy to sell airtime and beam Hindi film music straight back across the water into Indian homes. Its Wednesday-night countdown of film hits, *Binaca Geetmala*, hosted from 1952 by the velvet-voiced Ameen Sayani, became the most listened-to program in South Asia, and the advertisers followed the ears.

The Indian state had handed a foreign station its own most popular content, and its advertising revenue with it. By the mid-1950s the retreat was undeniable, and on the third of October, 1957, All India Radio capitulated, launching *Vividh Bharati*, a channel built expressly to broadcast the film songs Keskar had exiled. The minister had proved a lesson that runs through this whole book. You can control a transmitter. You cannot legislate what people want to hear.

— Partition's Divided Gharanas

The line that Cyril Radcliffe drew across the map in 1947 ran through provinces, villages, and gharanas alike. A gharana is a family of transmission, a house style carried down a lineage of teachers and disciples, and several of the great houses now found themselves cut in half by a closed and hostile frontier. No story shows the wound more clearly than one man's, and his voice closes this chapter's listening list.

Bade Ghulam Ali Khan was the supreme voice of the Patiala gharana, whose ornament-heavy, tappa-inflected style Chapter 17 placed among the nineteenth century's great house styles. Born in 1902 near Kasur in the Punjab, he found his home district on the Pakistani side of the new border, and like millions of others he moved, settling for a time in Lahore in the new Islamic republic. But the republic he had moved to was working out its own uneasy relationship to a classical music that some now marked as a Hindu inheritance, and the patronage and audiences a singer of his stature needed were thinner there. Disillusioned, he did the rare thing. He came back, took Indian citizenship in the mid-1950s, and settled in Bombay, where his *thumris* became, through recording and broadcast, some of the most beloved vocal music of the century. His return traced in a single decision the argument both countries were having about who owned the music.

He was the exception. Most who crossed stayed crossed. The Lahore station of All India Radio became Radio Pakistan on the day of partition, and a parallel institutional world assembled around it. Roshan Ara Be-

gum, trained in the same Kirana lineage that produced Bhimsen Joshi and Gangubai Hangal on the Indian side, became Pakistan's reigning classical soprano. The Sham Chaurasi, Talwandi, and Patiala houses now had branches on both sides of a border their students could no longer cross to hear one another. And the centuries-old qawwali lineage of Faisalabad that would one day give the world Nusrat Fateh Ali Khan, whom Chapter 20 follows to a Wiltshire festival stage, now grew up entirely inside Pakistan, its shrine circuit severed from the great dargahs of Delhi and Ajmer that had been its other half. Two radio ministries now trained the same ragas in mutual isolation. The music the reformers had spent a generation calling a single national inheritance had been split, overnight, into two.

The border only hardened. After the war of 1965, the quiet movement of musicians between Lahore and Delhi that had persisted into the early years narrowed to almost nothing, and a raga student in Karachi and one in Kolkata now grew up hearing entirely separate lineages of the same music. What had been one long conversation, carried for centuries across the whole Indo-Gangetic plain by touring ustads and shared Sufi shrines, became two monologues held on either side of a wall. Recordings crossed where people could not. For decades the surest way to hear a master on the other side was a cassette that had been copied, and copied again, until the tape hiss nearly swallowed the voice.

— Building the Akademis

India's most direct answer to the question of what its music was for was to build institutions to hold it. The **Sangeet Natak Akademi**, the National Academy of Music, Dance and Drama, was resolved into being by the government in 1952 and formally inaugurated in January 1953. Its very name was a policy. By yoking music, dance, and drama together, and by refusing to privilege the Hindustani north over the Carnatic south, or the classical over the folk, it declared that the republic would not force its enormous performing inheritance into a single official shape. It gave grants and awards that carried both money and honor, and it seeded state-level akademis so the structure reached a Manipuri drummer or a Kuchipudi dancer far from Delhi. Whether it ever distributed those resources fairly is a permanent debate. That it kept many artists professionally alive is not.

The intellectual groundwork, though, had been laid a generation before the state got involved, by two men who agreed on almost nothing and are

therefore always named together. Vishnu Narayan Bhatkhande, a Bombay lawyer turned musicologist, spent decades traveling to hereditary ustads, coaxing out the compositions they carried only in memory, and building a written theory to catch them. His great works, the Hindustani Sangeet Pad-dhati and the graded Kramik Pustak Malika compiled up to 1937, the year after his death, organized the sprawl of North Indian ragas into ten parent scales he called **thaats**. It was an imperfect grid, and he knew it. Several ragas fit no thaat cleanly, and musicians argue still about whether the system describes the music or disciplines it. But it gave teachers and students a shared vocabulary, which was exactly what the moment required. The figure lays the ten out in order, each a fixed pattern of flat, natural, and sharp notes from which its family of ragas descends.

THE TEN THAATS · PARENT SCALES OF HINDUSTANI MUSIC

thaat		S		R		G		M		P		D		N
Bilawal	<i>the major scale</i>	●	•	●	•	●	●	•	●	•	●	•	●	
Khamaj	<i>Mixolydian</i>	●	•	●	•	●	●	•	●	•	●	○	•	
Kafi	<i>Dorian</i>	●	•	●	○	•	●	•	●	•	●	○	•	
Asavari	<i>natural minor</i>	●	•	●	○	•	●	•	●	○	•	○	•	
Bhairavi	<i>Phrygian color</i>	●	○	•	○	•	●	•	●	○	•	○	•	
Bhairav		●	○	•	•	●	●	•	●	○	•	•	•	●
Kalyan	<i>Lydian</i>	●	•	●	•	●	•	●	•	●	•	●	•	●
Marwa		●	○	•	•	●	•	●	•	●	•	●	•	●
Purvi		●	○	•	•	●	•	●	•	●	○	•	•	●
Todi		●	○	•	○	•	•	●	•	●	○	•	•	●

● shuddha (natural) ○ komal (flat) ● tivra Ma (sharp)

Bhatkhande's ten thaats, the parent scales of Hindustani classification, from the all-natural Bilawal through Bhairav, Kafi, Asavari, Marwa, and Todi, each a fixed arrangement of komal, shuddha, and tivra svaras that seeds a whole family of ragas.

Vishnu Digambar Paluskar took the opposite road. A performer who had known real poverty, he concluded that the music could be saved only by reforming the society that carried it, and in 1901 he opened the Gandharva Mahavidyalaya in Lahore, one of the first schools to teach classical music to any student who came, whatever their caste or hereditary claim. Against a system in which the knowledge passed only within professional musician families, this was a genuinely radical act. He also bound the music to the nationalist cause, staging mass public concerts that framed Hindustani music as a Hindu inheritance to be restored, a framing that made some contemporaries uneasy and makes some scholars uneasy now. Their disagreement is one of the most productive arguments in the history of music scholarship. Bhatkhande gave the music a text. Paluskar gave it a school.

The historian Janaki Bakhle, in her study *Two Men and Music*, reads their joint achievement against its own grain. The national classical music the two Vishnus assembled, she argues, was built as much on exclusion as on preservation. The hereditary Muslim ustads whose families had actually carried the ragas were recast as unlettered custodians of a knowledge that Brahmin reformers would now systematize and own, and the courtesan singers who had sustained khayal and thumri, the tawaifs whose paradox Chapter 17 set out, were written out of the respectable history altogether. The point is not that the reform was worthless. It is that every act of preservation is also an act of selection, and someone is always left off the syllabus. It is a caution the rest of this book keeps in view.

The southern story ran on its own track, and started earlier. In December 1927, alongside the Madras session of the Indian National Congress, a music conference convened, and out of it grew the Madras Music Academy, formally inaugurated in August 1928. Its annual December conference and concert series, the Margazhi season, had begun the year before, and would swell across the century into the largest classical festival on earth, thousands of concerts packed into a single Chennai December, with the Academy's Sangita Kalanidhi title standing as Carnatic music's highest honor. Where the north argued about thaats and gharanas, the south built,

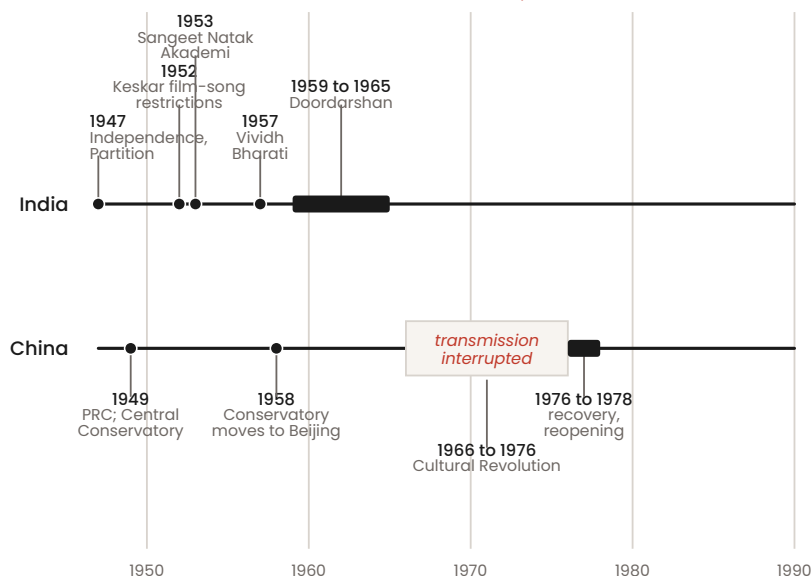
quite deliberately, a civic institution: a music academy run by lawyers and civil servants and *rasikas*, the knowledgeable listeners, rather than by any court. Two regions, two mechanisms, one instinct that the music was now a public trust.

What both the northern *akademis* and the southern academy produced, without quite intending to, was a national canon: a shortlist of living greats whose names an educated Indian anywhere was now expected to know, whose recordings All India Radio broadcast and whose awards the newspapers reported. A court had once made a musician's reputation within a single princely capital and no further. The republic made it, or withheld it, across an entire subcontinent at once. This was democratizing and centralizing in the same motion, and the tension between those two verbs is the whole story of the period.

— China Year Zero

China's new state was founded two years after India's, and set out, at first, on a strikingly parallel course. Set the two timelines side by side, as the figure does, and the early rhymes are unmistakable: a new government, a burst of institution-building, radio networks and academies and folk-collection drives, each nation straining to move a music that had lived in bodies and lineages into the world of the bureau and the classroom.

TWO RENAISSANCES · INDIA AND CHINA, 1947 TO 1990



Two nations, two tracks: India from independence in 1947 and China from 1949, their radios, academies, conservatories, and ruptures aligned on a single timeline running to 1990, parallel at the start and violently divergent in the middle.

The People's Republic, proclaimed on the first of October, 1949, was in its first years genuinely committed to preserving and systematizing traditional music. Teams went into the countryside to collect and notate folk songs before they could be lost. The Central Conservatory of Music was established across 1949 and 1950 out of several older schools in Tianjin, then moved to Beijing in 1958, and it trained musicians in Chinese instruments and Western ones alike; for a while the coexistence seemed workable. The template was Soviet: the conservatory as a centralized engine of standardized, notation-first training. That template would prove double-edged. It produced players of formidable technical polish and, critics argued, quietly sanded away the regional grain, the particular way a Jiangnan master and a Shaanxi master bent the same erhu phrase, which had been one of the tradition's deepest riches. Chapter 21 returns to the conservatory as one of preservation's imperfect vessels.

— The Ten Silent Years

Then the coexistence ended. The Cultural Revolution, which Mao launched in 1966 and which convulsed China until his death in 1976, held that traditional culture was feudal and therefore an enemy of the revolution. Operas that had been sung for centuries were forbidden. Instruments tied to the old court and temple worlds were smashed or confiscated. Musicians were sent to labor camps for re-education; teachers were paraded and humiliated, their mastery recast as proof of bourgeois corruption. The teacher-to-student chains that had survived dynastic collapse and colonial disruption were now, in a single decade, deliberately broken. Some of what was lost during those ten years cannot be recovered because the people who knew it are gone.

*Some of what was lost during those ten years
cannot be recovered because the people who
knew it are gone.*

What was permitted was a tiny, obsessively repeated canon. The **yang-banxi**, the eight model works approved under the direction of Mao's wife Jiang Qing, were for much of the period the only stage music a citizen could legally hear: five revolutionary Peking operas, two ballets, and, tellingly, one symphony, the Shajiabang symphony, which set a model-opera story for Western orchestra and chorus. Their creators intended a synthesis of Chinese and Western form. Most musicians experienced them as a strait-jacket. The legacy is genuinely uncomfortable. Ideologically repellent to many who lived through them, the model works were also technically accomplished, and they left a lasting mark on how Chinese composers thought about welding an orchestra to an operatic tradition, a question Chapter 22 finds Tan Dun's generation still working out.

The contrast with China's neighbors, in exactly these years, could not be sharper. While Beijing was severing its transmission chains, Tokyo and Seoul were passing laws to weld theirs in place. Japan's Law for the Protection of Cultural Properties, enacted in 1950, created a category of Important Intangible Cultural Properties and named the master artists who held

them, the designated masters the public came to call **Living National Treasures**. Korea followed in 1962 with a Cultural Properties Protection Act built on the same principle, appointing official holders of pansori, court music, and the rest, and charging them by law to teach. Three states, one shared Confucian musical inheritance between them, and three opposite policies inside a single generation: one government working to destroy its transmission, two governments legislating to guarantee theirs. It is the clearest natural experiment the century offers on what a state can do to a music, for it and against it, and Chapter 21 takes up the treasures-and-holders model as one of the world's most developed answers.

— Two Recoveries

The recovery in China after 1976 was fast, which is not the same as complete. As Deng Xiaoping's reforms reopened the country, musicians who had spent a decade forbidden their instruments returned with startling urgency. Shuttered conservatories reopened; scholars began documenting what the Cultural Revolution had nearly erased; a young generation sought out the surviving old masters before they died. But the transmission was thinner than before, and the standardized conservatory that reassembled it carried the same smoothing tendency into the new era. What came back was real, and it was not quite what had gone. When the Central Conservatory reopened its doors, it admitted, in 1978, a single legendary entering class of students who had spent the Cultural Revolution in the fields and the factories, among them the composers Tan Dun, Chen Yi, and Zhou Long, who would carry Chinese material onto the world's concert stages within a decade. That such a generation existed at all, hungry and formidable and slightly feral, was itself a measure of what the silent years had dammed up rather than drained away.

India's institutional story, meanwhile, matured without a rupture. Television arrived when Doordarshan began experimental broadcasts in September 1959, and a regular service in 1965, and it extended the double logic radio had begun. It widened the audience enormously and imposed its own new pressures, now visual as well as temporal, on how a musician was expected to perform. It also minted a new kind of fame. Where a court singer's renown had once stayed regional, television could make a Ravi Shankar or an M.S. Subbulakshmi a household name across every language line at once, and in 1988 the state broadcaster's own national-

integration anthem, “Mile Sur Mera Tumhara,” carried the voice of the Kirana master Bhimsen Joshi outward across the whole country on a single film, the analog ancestor of the streaming spread Chapter 22 describes.

The word in this chapter’s title deserves the scrutiny it rarely gets. Renaissance implies a death and a rebirth, and that is not what happened. The classical traditions of India and China were suppressed, distorted, impoverished, and in China’s case violently damaged, but they did not die, because individuals kept practicing them who could not imagine doing otherwise. What the new institutions supplied was not resurrection but visibility and support, a scaffolding thrown up around what had survived. Something real was gained: wider access, better documentation, steadier livelihoods. Something real was lost: the intimacy of the guru and the disciple, the regional specificity of local styles, the flexibility that comes from knowledge carried in bodies rather than printed in textbooks. Chapter 21 takes up the imperfect vessels that now carry that knowledge, and Chapter 22 the digital storm that would break over all of them. But the deepest fact of this whole period is a quiet one. The renaissance, if we use the word at all, was built on continuity that had never entirely broken, no matter how hard anyone tried to break it.

LISTENING NOTES

- ♪ **Bade Ghulam Ali Khan, Ka Karun Sajni Aaye Na Balam (thumri, Raga Sindh Bhairavi)**

The Patiala voice that crossed the new border twice; hear the effortless tappa runs and the ache that made this the most loved khayal-thumri singing of the century.

- ♪ **M.S. Subbulakshmi, Kurai Onrum Illai**

The Carnatic voice that radio and then television made a household name across every language line in India; placement so pure it needs no ornament to move you.

- ♪ **Bhimsen Joshi and others, Mile Sur Mera Tumhara (Doordarshan, 1988)**

The state broadcaster’s instrument of national integration, opening with Joshi’s Kirana-trained voice and threading dozens of traditions across the country on one film.

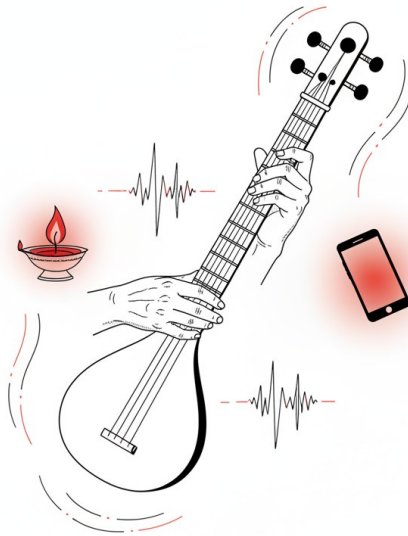
- ♪ **Yin Chengzong and the Central Philharmonic, Yellow River Piano Concerto (1969)**

The Cultural Revolution’s permitted synthesis: a Western concerto built from Xian Xinghai’s wartime cantata, technically dazzling and politically inescapable, the sound of the one door left open.

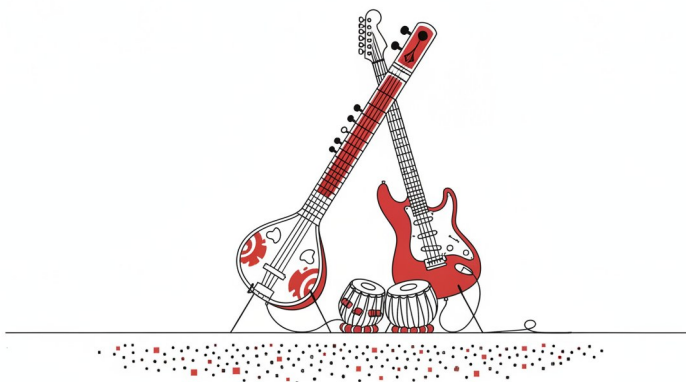


PART V

The Living Tradition



Fusion, preservation, streaming, and the artificial voice: how the oldest musical traditions on Earth learned to live, and to stay themselves, in the newest world.



THE LIVING TRADITION — CHAPTER 20

East Meets West, Again: Fusion and Collaboration

A sitar in a rock song is a costume. Ten years inside another music is a conversion. The second great meeting of East and West produced both, and learning to tell them apart is the whole story.

1955 TO 2000

• LONDON, MONTEREY, LAHORE, BATH

संगम

sangam · confluence

On the last afternoon of the Monterey Pop Festival, 18 June 1967, a man in his forties sits down cross-legged on a carpet at the front of a stage built for electric guitars. Beside him is Alla Rakha with a pair of tabla, and behind him a woman holding a tanpura whose four strings will drone under everything that follows. Before he plays a note, Ravi Shankar asks the crowd not to smoke and not to take photographs while the music is going, because for him this is not a show but a form of prayer with an audience. Then he

tunes, at length, and the young Californians, primed for volume, applaud the tuning by mistake. Shankar smiles and begins.

What follows takes most of the afternoon, and by the end the crowd that had come for Janis Joplin and The Who and a guitarist named Jimi Hendrix who would set his instrument on fire two nights running is on its feet, roaring, for a raga most of them could not name. Shankar is moved and also wary. He loves the attention and distrusts the scene around it. He will say later that he was appalled to watch Hendrix burn a guitar, because in the world he comes from an instrument is closer to a living teacher than to a prop. That afternoon holds the whole problem of this chapter in miniature: a real meeting, on a stage that did not quite know what it was hearing.

That tension, between a music its maker treats as prayer and a stage that applauds the tuning by mistake, is the whole subject of this chapter. The second great encounter of East and West, running from the mid-1950s to the end of the century, produced both the costume and the conversion, and the entire moral weight of the story lies in learning to tell them apart. Chapter 18 described the first encounter, staged behind railings and captured on wax cylinders under a steep imbalance of power. This one was warmer, more mutual, and studded with genuine friendships. It was not therefore innocent. Access, as we will see by the end, is not the same as attention.

— The Handshake at Monterey

The most famous version of the meeting had already begun offstage, and it started as fashion. George Harrison picked up a sitar almost as a toy in 1965, using it for a few bars of color on the Beatles' "Norwegian Wood," and the craze that followed, sitar drones bolted onto pop songs from London to Los Angeles, soon had a name, **raga rock**. For most of the bands who reached for it, the sitar was a signal, a way of sounding current, and nothing deeper.

Harrison went further, and the going further is the point. In June 1966 he actually met Shankar in London, and under the older man's eye the toy became a discipline. He traveled to India, sat on the floor for hours, practiced scales until his legs cramped, and came away with the one lesson the fashion could not supply: that he was a raw beginner, and that the instrument he had made famous was, in Shankar's universe, something like a first-year exercise. The humility changed what he made. "Within You Without You," on the Beatles' 1967 album, is not a pop song wearing a

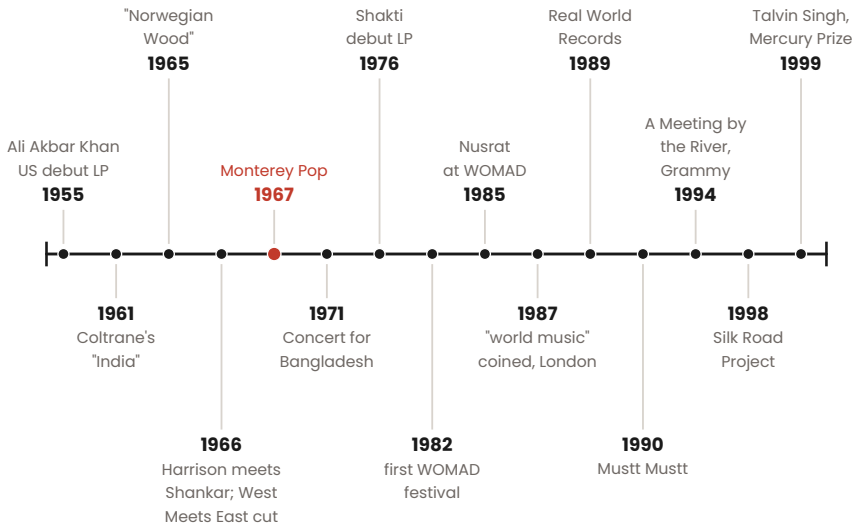
sitar; it is a piece built on Indian instruments and Indian structure, Harrison stepping back to let the tradition carry the weight.

Shankar was glad of the attention and frightened by it in equal measure. He worried, as he said in interview after interview, that the sitar would become a sound effect rather than a vehicle for something serious, that the crowds arriving through the Beatles door would mistake a mood for the music. His unease deepened as the decade wore on. He played Woodstock in the rain in August 1969 and came away disliking the festival culture around it, its drugs and its hunger for spectacle, which sat badly against the ascetic seriousness his own training demanded. He wanted the audience and distrusted the terms on which it came. That doubled feeling, gratitude braided with worry, runs through every honest collaboration in the pages that follow.

— Before the Beatles: Ali Akbar Khan's LP

The story usually starts with the Beatles, and starting there gets it wrong by a decade. Serious Indian classical music had already arrived in the West, formally and on record, before Harrison ever touched a sitar.

MILESTONES IN FUSION, 1955 TO 1999



The arc of the second encounter: Ali Akbar Khan's first Western LP in 1955, West Meets East recorded in 1966, Monterey in 1967, the Concert for Bangladesh in 1971, Shakti's debut in 1976, WOMAD's first festival in 1982, the coining of world music in 1987, Real World in 1989, and the Silk Road Project in 1998.

The violinist Yehudi Menuhin had encountered Indian music in the 1950s and become its improbable champion in the Western concert world. On his invitation, and with Ford Foundation money behind a festival of the living arts of India, the sarod master Ali Akbar Khan came to New York in 1955. On 18 April he recorded *Music of India: Morning and Evening Ragas*, with Chatur Lal on tabla, released on Angel Records with spoken introductions by Menuhin himself. It was the first full LP of Indian classical music issued in the West. On the same trip Ali Akbar Khan played on Alistair Cooke's television program *Omnibus*, the first Indian classical performance broadcast on American television. A sarod, a set of tabla, and a raga that took its time entered American living rooms in 1955, and almost

nobody outside a small circle noticed. The audience was not ready. The music was.

Ali Akbar Khan and Ravi Shankar came from the same source, the great teacher Allauddin Khan of Maihar, whose gharana Chapter 19 placed at the center of twentieth-century Hindustani instrumental music. Ali Akbar was his son, Ravi Shankar his son-in-law and disciple, and both men carried a training measured in decades. Shankar had spent the years from 1949 to 1956 as music director of All India Radio's instrumental ensemble, part of the state apparatus Chapter 19 described, before he ever thought about Western audiences. When these musicians walked onto Western stages, they were not curiosities reaching for legitimacy. They were masters of a codified art looking for listeners, and they had to build the audience before they could reach it.

Menuhin's own collaboration with Shankar shows what the careful version looked like. Recorded in 1966 and released in 1967, the album *West Meets East* did not try to melt the two traditions into a single alloy. Menuhin plays Western violin, Shankar plays sitar, and the pieces let each remain recognizably itself, two musicians listening hard and answering. The record won a Grammy for Best Chamber Music Performance, an almost comically wrong category for what it actually was, and the prize mattered anyway: it told the American industry that this kind of meeting had a market. Shankar became the first Indian musician to win a Grammy. The result, as the best of these encounters tended to be, was a conversation rather than a synthesis.

*They were not curiosities reaching for
legitimacy. They were masters of a codified art
looking for listeners.*

Four years later came the event that dwarfed all the others. On 1 August 1971, at Madison Square Garden, Shankar asked Harrison to help raise money for the refugees of the war in what was becoming Bangladesh, and Harrison assembled the Concert for Bangladesh, the template for every benefit mega-concert since. Shankar opened the show with Ali Akbar

Khan and Alla Rakha. When the crowd applauded the tuning, Shankar told them, dryly, that if they liked the tuning so much he hoped they would enjoy the playing more. The playing, and the cause, reached a scale no raga recital ever had.

— Coltrane's Long Listening

The jazz world was conducting its own dialogue with Indian music through the same years, and its terms were deeper because its practitioners were not decorating songs but rebuilding how their music moved through time. John Coltrane's interest was philosophical and structural before it was ever a matter of borrowed color. He read in Indian thought and theory, he sought out Indian musicians, and he was already dismantling the chord-change machinery of bebop when the drone entered his imagination. "My Favorite Things," recorded in 1960, hangs on a vamp that circles a single harmonic center the way a raga leans on its tonic. His piece titled "India," recorded live at the Village Vanguard in November 1961, is built over a drone outright. He sought Shankar out in person in the mid-1960s, and named his son, born in 1965, Ravi, after him. The direction culminated in *A Love Supreme* in 1965, an album that treats sustained modal inquiry as a spiritual act. Whether any of it is "Indian" in a strict sense misses the point. It is an American musician absorbing a set of structural ideas and using them to solve problems his own tradition had raised.

Miles Davis had cracked the same door a year before Coltrane's vamp, with the modal architecture of *Kind of Blue* in 1959, and though he explained himself in the language of George Russell's Lydian theory rather than the language of the raga, he too was replacing bebop's chord ladder with a sustained field of sound. By the time of his electric records around 1970, he was folding in Indian instruments outright, tabla and electric sitar threaded through the long trance-like grooves. The traditions of Asia and Africa had shown a generation of jazz musicians that such a field was possible, and that a piece of music did not need to keep changing chords in order to keep moving.

The quietest and most complete conversion of all happened away from the stage entirely. Pandit Pran Nath, a master of the Kirana gharana, moved to New York in February 1970, and the composers La Monte Young and Marian Zazeela became his first Western disciples, submitting to the full guru-shishya discipline Chapter 19 traced through the gharana system.

Terry Riley became a lifelong student. The drone-based, slowly-unfolding aesthetic of American minimalism, Young's endless sustained tones, Riley's raga-disciplined keyboard, grew directly out of that apprenticeship. Philip Glass had reached the same well by another road: hired in Paris in 1965 to help transcribe Ravi Shankar's music for a film score, he found in Indian rhythm the additive, cell-by-cell thinking that would organize his own mature style, and decades later made the album *Passages* with Shankar as an equal partner. Here the East did not supply a flavor. It supplied a teacher, and the students gave it years.

— Shakti: the Deep End

If minimalism was one deep end of the encounter, the band called **Shakti** was the other, and it may be the furthest any group of musicians has gone toward a genuinely shared language. It formed in the mid-1970s around the English guitarist John McLaughlin, a veteran of Miles Davis's electric bands who had taken up the study of Indian music and yoga in earnest. He did not hire Indian musicians to garnish a jazz group. He built a band in which the Indian classical structure was the structure.

The players were among the finest of their generation. Zakir Hussain, son of the tabla master Alla Rakha, sat at the tabla. L. Shankar, a South Indian violinist steeped in the Carnatic tradition, played a specially built double-necked violin. T.H. "Vikku" Vinayakram played the ghatam, the tuned clay pot of Carnatic percussion. Their debut, recorded live in 1975 and released in 1976 as *Shakti* with John McLaughlin, sounds like nothing before it: an acoustic guitar retuned and refretted to slide through Indian intervals, a violin and a guitar trading raga phrases at impossible speed, Hindustani and Carnatic rhythmic cycles locked together by two of the greatest percussionists alive. It is not jazz with Indian spices, and it is not a raga recital with a guitar. It is a third thing, negotiated in real time between musicians who each had to learn enough of the others' grammar to improvise inside it.

Shakti proved that fusion could be an act of mastery rather than of tourism, and the proof kept accruing. Nearly fifty years after that first record, a reunited Shakti built around McLaughlin and Zakir Hussain released *This Moment*, and on 4 February 2024 it won the Grammy for Best Global Music Album. That night, and what it meant for the tabla player at its center, belongs to Chapter 23. What matters here is the principle the

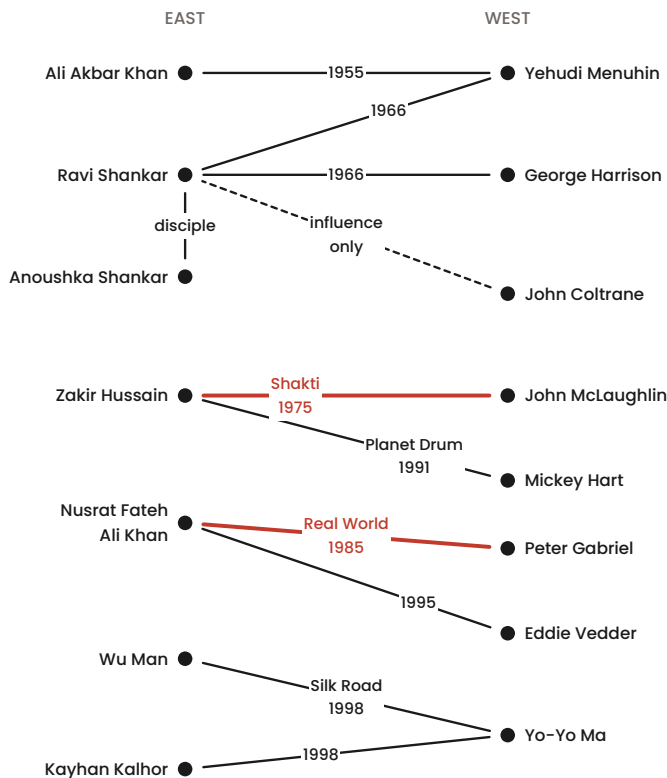
band established in 1976: two traditions can meet so deeply that the seam disappears, but only if the musicians pay the price that Shankar demanded of Harrison, the price of years.

— Nusrat Goes to Real World

By the 1980s a machinery had grown up to move this music, and its most thoughtful corner belonged to Peter Gabriel. The festival came first. WOMAD, the World of Music, Arts and Dance, was conceived by Gabriel and his collaborators around 1980, and its first festival was held at Shepton Mallet in England in 1982. It was a financial catastrophe, saved only when Gabriel's former band Genesis agreed to a reunion concert to clear the debts. It is worth being exact about the chronology, because the story is often told backward: WOMAD came before Gabriel's celebrated 1986 recording with the Senegalese singer Youssou N'Dour, not after it. The festival was the cause, not the souvenir.

The idea outlived the deficit. WOMAD became one of the most important platforms for non-Western music in the West, and its method was simple: put musicians from everywhere on the same stages, let audiences stumble into sounds they were not looking for, and trust that quality would carry across the gap of unfamiliarity. The festival format did something a concert hall could not. A recital of Indian classical music in a Western city arrives wrapped in expectations about how to sit, what to know, how solemn to be. A festival dissolves all of that. People drift from stage to stage, meet music they never went looking for, and now and then find themselves stopped cold by something they cannot explain and did not choose. It was at WOMAD, from 1985 onward, that British audiences first met the Pakistani qawwali singer Nusrat Fateh Ali Khan, whose voice did not require anyone to understand a word of Urdu to be flattened by it.

WHO PLAYED WITH WHOM, 1955 TO 1998



vermillion = the deepest collaborations

The web of the second encounter: Ravi Shankar linking Menuhin, Harrison, and Coltrane's circle; Allauddin Khan's gharana feeding Shankar, Ali Akbar Khan, and Shakti; Peter Gabriel's Real World gathering Nusrat Fateh Ali Khan, Abida Parveen, and Sheila Chandra; and Yo-Yo Ma's Silk Road Ensemble binding Kayhan Kalhor, Wu Man, Sandeep Das, and Cristina Pato.

Gabriel's label Real World Records, founded in 1989, was the recording arm of the same instinct. It brought artists to a residential studio at Box, in the west of England, invested in genuine sound quality, and tried to present the music with context rather than as background. Its roster included Nusrat Fateh Ali Khan, the Pakistani Sufi vocalist Abida Parveen, and the British-Indian singer Sheila Chandra, among many others. The

contradictions were real and the label knew it: the studio polish was unmistakably Western, and the marketing decisions were made in England for listeners in England and America. Within those limits, Real World put some of the most important musicians on earth in front of some of the largest audiences they would ever reach.

FIGURE

Nusrat Fateh Ali Khan

He was born in Faisalabad in 1948 into a family that had, by its own account, sung qawwali for some six hundred years, a lineage figure best treated as tradition rather than documented fact. He took over the family party in 1971, after his father's death, and possessed a voice of freakish range and stamina that could sustain a single improvised passage until an audience broke.

The West found him through WOMAD in 1985. Signed to Real World, he made records that tested how far the tradition would stretch without snapping: *Mustt Mustt* in 1990, produced by Michael Brook, whose title track became a global club record once Massive Attack remixed it, and later the soundtrack collaboration with Eddie Vedder for the film *Dead Man Walking*. He worked with Western producers on their terms and remained, on the microphone, entirely himself.

He died in London in 1997, at forty-eight, his body worn out by the demands of a punishing career. He had recorded well over a hundred albums and left qawwali more widely heard than any singer in its history.

— The Shelf Called World Music

The category that shelved all of this was invented in a pub. In 1987 a group of British record-label executives and music journalists met in a North London back room to solve a merchandising problem: where, in a record shop, do you file music from Africa, Asia, and Latin America that fits no existing bin. The term they chose, **world music**, was deliberately vague, a catch-all elastic enough to hold Malian kora and Bulgarian choirs and Javanese gamelan under one sign. As a marketing device it worked, and sales climbed through the 1990s. As a description of anything musical it was close to meaningless, lumping together traditions whose only shared trait was that they were neither Western nor European classical.

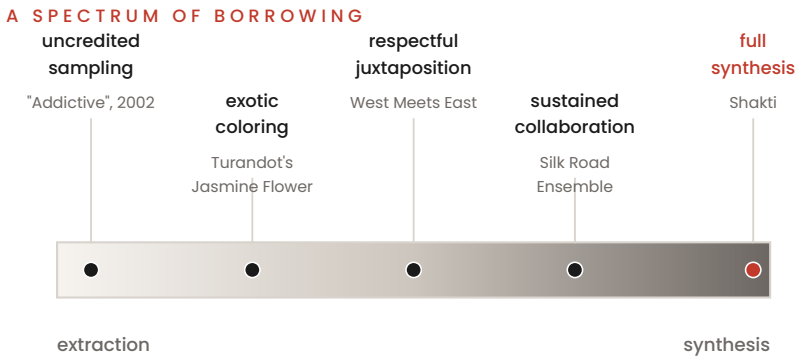
The most ambitious project to work inside that market refused its laziness. In 1998 the cellist Yo-Yo Ma founded the Silk Road Project on the premise that the old trade routes of Chapter 16 had carried music as surely as they carried silk, and that the traditions strung along them still shared a buried grammar that could be reactivated in new work. The Silk Road Ensemble gathered players from across that geography and gave them real compositional authority: the Iranian kamancheh master Kayhan Kalhor on the spike fiddle, the Chinese pipa virtuoso Wu Man, the Indian tabla player Sandeep Das, the Japanese shakuhachi player Kojiro Umezaki, the Galician bagpiper Cristina Pato. What they made was not traditional music from anywhere. It was new music written for exactly this improbable room of instruments. Critics fairly noted that the project sometimes smoothed real differences into an agreeable cosmopolitan blend. At its best it did the opposite, producing music that was genuinely strange and genuinely new.

And then the direction of the whole enterprise flipped. Everything described so far in this chapter is, in the end, Westerners reaching East. The children of the South Asian diaspora reached in the other direction, from the inside. In Britain in the 1990s a generation raised on both tabla and drum machines built the **Asian Underground**, mixing qawwali samples and tabla loops into club music that was theirs by birthright. Talvin Singh ran the Anokha club nights and won the Mercury Prize in 1999 for his album *OK*; Nitin Sawhney's *Beyond Skin*, released the same year, mapped the doubled identity of the British Asian directly onto sound. This was not fusion as a Western producer's project. It was second-generation immigrants making a music that only they could make.

Their arrival threw the ugliest version of the encounter into relief. In 2002 the American R&B track "Addictive" became a hit built on an uncredited sample of a Lata Mangeshkar recording lifted from a Hindi film, used without permission or payment until the Indian rights holder went to court. The voice in that sample belonged to the most recorded singer in the history of the world, and it had been treated as free raw material, a texture to be taken because nobody expected the source to have lawyers. The suit that followed was a small hinge in how the industry learned to treat music from the Global South as property with owners rather than atmosphere with none. Set that episode beside Talvin Singh sampling his own inheritance, or beside Yo-Yo Ma building relationships over years, and the moral spectrum of fusion snaps into focus. The same word covers the theft and the marriage.

— Transaction and Transformation

So what does fusion actually mean, and is it always a good thing. The collaborations in this chapter are not equivalent, and pretending they are is the real failure of the shelf label. Menuhin and Shankar in a London studio, each playing his own tradition while listening to the other, is a different act from a producer sampling a gamelan without credit. Shakti negotiating a shared language over years is a different act from a compilation assembled to move units at Christmas. The word “fusion” spans all of it, and that is precisely the problem.



the question is not whether to borrow but how deeply one listens

The spectrum of fusion, from the uncredited sample that pays and acknowledges nothing, through respectful juxtaposition where two traditions share a stage without merging, to the deep synthesis of Shakti or the Pran Nath lineage where musicians pay for a shared grammar in years of study.

What the honest encounters share is a quality of genuine listening, and genuine listening is not guaranteed by good intentions. Coltrane did not borrow Indian scales; he spent years thinking about what they were doing. Ma did not hire decorative players; he gave the musicians he worked with real authority and time. Shankar did not simply take Harrison's money; he

made hard demands on Harrison's seriousness. This is the guru-shishya relationship that this book has traced from the Vedic clearing forward: the understanding that real musical learning is not a transaction but a transformation. You can hire a sound. You cannot hire an education, and you certainly cannot hire the years it takes to be changed by one.

You can hire a sound. You cannot hire an education, and you certainly cannot hire the years it takes to be changed by one.

The history is full of encounters that fell short of this: meetings driven by novelty, by marketing, by the plain economic fact that musicians from poor countries could be hired cheaply and their music packaged for sale in rich ones. Those encounters produced music that was sometimes interesting and often forgettable, and they sometimes left the musicians feeling used in ways they were too polite to say. Alongside them stood the other kind. Ry Cooder and the Indian slide player V.M. Bhatt met with almost no shared vocabulary and recorded *A Meeting by the River* in 1993, an improvised conversation between a bottleneck guitar and a modified veena that won a Grammy the following year and sounds, still, like two strangers discovering they speak neighboring dialects of one language. Those encounters left marks on the music that are still audible.

What separates them from the forgettable ones is not the mixture but the direction of travel. In the shallow version, one tradition takes from another and stays exactly what it was, richer by a texture. In the deep version, both parties are altered: Harrison hears differently forever, Coltrane restructures his art, McLaughlin's fingers learn intervals no Western guitarist had needed. The rare thing these meetings offer, when they work, is the possibility that two traditions, meeting honestly, can each become more fully themselves. That is a stranger and better outcome than blending, and it cannot be faked, because it costs the participants the one currency that cannot be counterfeited, which is time.

The world-music market lived and died roughly with the compact disc. By the early 2000s, streaming had begun to dissolve the category even as

it made the music more available than ever, and Chapter 22 follows that dissolution into the present. A listener anywhere can now summon Carnatic violin, Armenian duduk, Javanese gamelan, and Korean pansori in seconds, for nothing, without leaving a chair. Whether that frictionless access has produced any more real understanding is the open question this chapter leaves for the next. Access is not the same as attention. The long, patient listening that made the best of these collaborations possible cannot be supplied by an algorithm. It has to be chosen, and choosing it means first knowing that it is worth the choice. That is what the festivals, the records, and the friendships in this chapter did at their finest: they gave people a reason to choose, and a few of those people gave the rest of their lives to the choosing.

LISTENING NOTES

♪ Ali Akbar Khan, *Music of India: Morning and Evening Ragas* (1955)

The first Indian classical LP released in the West, with Menuhin's spoken introductions; hear a sarod master unfold a raga at full length a decade before pop discovered the sitar.

♪ Ravi Shankar and Yehudi Menuhin, *West Meets East* (1967)

The careful model of encounter; listen for how sitar and violin answer each other while each stays recognizably itself, a conversation rather than a merger.

♪ Shakti, *Shakti with John McLaughlin* (1976)

The deep end; follow the retuned acoustic guitar sliding through Indian intervals as violin and tabla and ghatam lock into cycles no single tradition could have built alone.

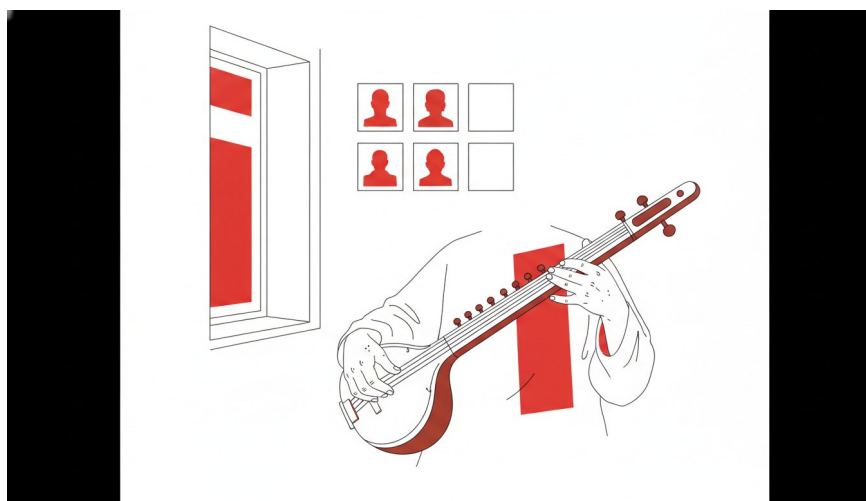
♪ Nusrat Fateh Ali Khan and Michael Brook, *Mustt Mustt* (1990)

Qawwali meeting Western studio production without losing its nerve; the title track, later remixed by Massive Attack, carried a six-hundred-year devotional tradition onto dancefloors.

♪ Ry Cooder and V.M. Bhatt, *A Meeting by the River* (1993)

Two strangers, a slide guitar and a modified veena, improvising a shared language in real time; the sound of fusion as discovery rather than transaction.





THE LIVING TRADITION — CHAPTER 21

Keepers of the Flame: Preservation and the Gharana

A tradition is not preserved when it is recorded. It is preserved when a teenager decides to give it twenty years of mornings. Four imperfect vessels, gharana, conservatory, archive, apprenticeship, now carry the flame together.

1900 TO THE PRESENT

· KOLKATA, MUMBAI, TOKYO, SEOUL, SHANGHAI

घराना

gharana · of the house

A teenager stands in a lane off a Kolkata thoroughfare, at a door he has traveled two days by train to reach. He carries a cloth bag and an instrument, and nothing else that matters. He does not carry a schedule, because there is no schedule. For the first several weeks he will sweep the practice room, tune the tanpuras before his teacher wakes, carry the tea, run the errands, and above all sit against the wall and listen to the same short phrase played

and sung and played again, the variations between one rendering and the next so fine that his own ear cannot yet hear them. This is **seva**, service, and it is not a hazing or a test of humility. It is the first lesson. Before you can be taught, you must learn to attend.

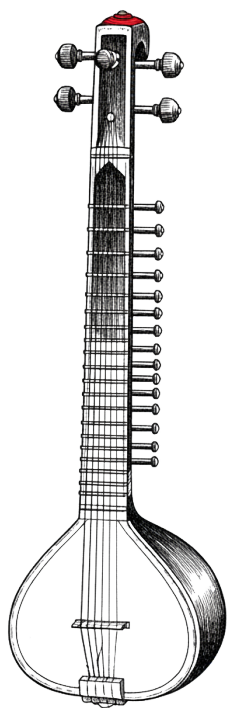
The relationship he has entered is called **guru-shishya parampara**, the chain of teacher to disciple that has carried Indian classical music for as long as there has been Indian classical music to carry. A parampara is a succession, a handing down, and the word contains the whole idea: that what moves between the two people is a single living thing passing through time, not a set of files copied from one drive to another. More than a century before this boy arrived, another boy stood at a comparable door in the same city and refused to leave, and the tradition he forced his way into still fills concert halls every night.

That boy was Allauddin Khan, and his life is the argument of this chapter in miniature. A tradition is not preserved when it is recorded, catalogued, or written into a textbook. It is preserved when a person decides to give it twenty years of mornings. The modern world has built four vessels to hold that decision, the gharana, the conservatory, the archive, and the apprenticeship itself, and every one of them leaks. What is new in the present age is that a tradition can pour itself into all four at once. What is old, and unresolved, is the question of who is allowed to carry the flame and who is kept from it.

— The Disciple at the Door

The year of Allauddin Khan's birth is disputed, as such things often are for people born poor and far from any registry; the likeliest date is around 1862, in a village near Comilla in the eastern reaches of Bengal, in what is now Bangladesh. What is not disputed is that as a boy he ran away toward music. The stories told and retold in his lineage describe years of hunger in Kolkata, an apprenticeship in the pit orchestra of a theatre where he learned to play nearly every instrument he could get his hands on, and a determination that shaded into obsession. He is said to have practiced through the night with a cord tied so that if he slumped into sleep it would jerk him awake. Legend has burnished the details, as legend does, but the shape is corroborated by everyone who knew him. Here was a man who treated practice as a form of devotion bordering on penance.

The turning point was his apprenticeship to Wazir Khan of Rampur, one of the last great beenkars of that court and a descendant of Tansen, whose rudra veena carried the Senia lineage that Chapter 10 followed out of the Mughal court. To be admitted there was to touch the deepest root of North Indian music. Allauddin Khan absorbed the dhrupad gravity of the beenkars and transferred it to the sarod, the fretless plucked instrument he made his own, and later to his students. In doing so he founded the lineage seated at Maihar, the small princely state where he served as court musician until his death in 1972.



The sarod: a fretless steel fingerboard, a skin-covered gourd resonator, and a bank of sympathetic strings, plucked with a polished coconut-shell plectrum to produce the gliding, weeping line the Maihar masters drew from it.

What Wazir Khan gave Allauddin Khan, and what Allauddin Khan in turn gave Ravi Shankar, Nikhil Banerjee, and his own children, was not a repertoire that could have been mailed. The notes and compositions were

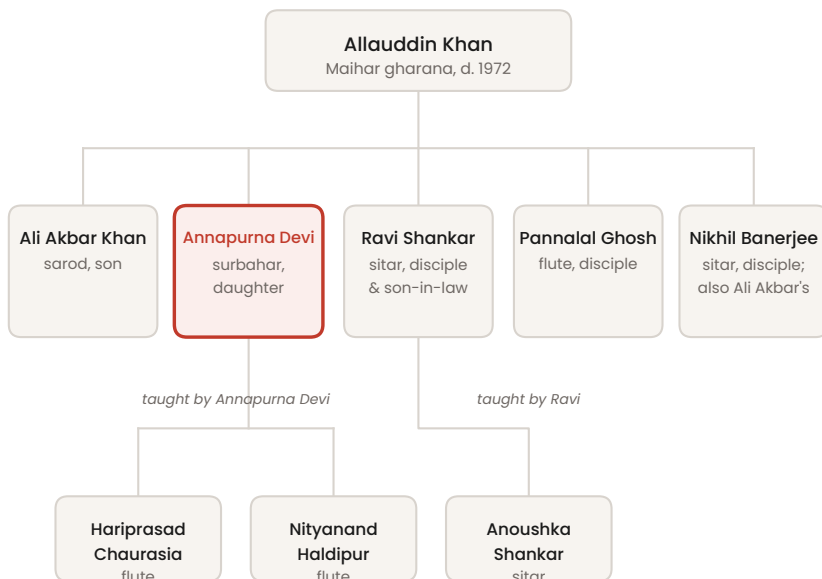
the smallest part of it. What passed was the weight of a phrase and the timing of its release, the difference between a note that is merely correct and a note that is alive, the discipline of a raga's character held across an hour of improvisation. None of that fits on a page. It lives in proximity, in ten thousand small corrections delivered by a raised eyebrow or a single re-sung line, and it can be transmitted only by a person who has it to a person willing to sit still long enough to receive it. That is why the door, and the years of sweeping behind it, were never incidental to the teaching. They were the teaching's precondition.

— The House Styles

The word for such a lineage is **gharana**, from the Hindi ghar, a house or home. A gharana is a house of musical thought: an identifiable way of singing or playing that can be traced back through generations to a founding master or a particular town, carrying with it a whole philosophy of what music is for. How much elaboration is too much. How silence functions inside a phrase. Whether the goal is the perfect unfolding of a raga's architecture or the overwhelming of an audience's feeling. These are not trivial differences. A musician trained in one gharana can hear a few phrases of an unfamiliar recording and name the lineage almost at once, the way a linguist hears a region in an accent.

The gharanas as we name them today crystallized in the second half of the nineteenth century, when the collapse of the old courts after the revolt of 1857 scattered hereditary musicians into the cities, a dispersal Chapter 17 traced. The sociologist Daniel Neuman noted that a gharana conventionally requires three generations of distinguished musicians before the name holds. In Hindustani vocal music the great houses became a map of the north: Gwalior, the oldest and most balanced khayal style; Kirana, built by Abdul Karim Khan around the slow savoring of each note; Jaipur-Atrauli, whose founder Alladiya Khan prized dense, difficult compound ragas; Agra, rooted in the older dhrupad; Patiala, ornament-rich and virtuosic; and Rampur-Sahaswan. On the instrumental side stood Allauddin Khan's Maihar house and the Imdadkhani, or Etawah, gharana, whose Vilayat Khan bent the sitar toward the human voice.

THE HOUSE OF ALLAUDDIN KHAN



one house, three generations of masters

The house of Allauddin Khan: from the Rampur beenkar Wazir Khan down through Ali Akbar Khan on sarod, Annapurna Devi, and Ravi Shankar on sitar, out to a third generation of players on four continents. As the figure shows, one lineage becomes a map of twentieth-century Indian music.

The figure traces how a single house can become a tradition's central nervous system. Yet the gharana is a vessel built for a world that no longer quite exists, a world of resident courts and lifelong proximity. It concentrates aesthetic wisdom to an extraordinary degree, and it concentrates the risk along with it. A lineage can be broken by politics, by poverty, or simply by the early death of the one master who held its rarest knowledge. Everything depends on the chain remaining unbroken, and chains break.

— The Economics of Devotion

The gurukul, the household academy in which a student lived with the teacher for years, was economically possible only under one condition: a patron wealthy enough to feed both master and disciples while neither did

anything but music. That was the court's function, and the harmonium of that arrangement was the maharaja's treasury. The collapse of court patronage, accelerated by colonial policy and finished by independence in 1947, pulled the floor out from under the whole system. It did not vanish overnight; it adapted, as living things do. But adaptation has a price.

When Alladiya Khan taught in the early twentieth century, he could command a student's entire attention for a decade. When his musical descendants teach now, the student has a university degree to finish, parents counting the cost of a career in music, and perhaps a few hours a week to spare. The knowledge can still pass, but the texture of transmission has thinned, and some of what lived in that texture, the things that only years of unhurried proximity could carry, has not survived the thinning.

If the economic base for the old apprenticeship is gone, someone has to take the patron's place. In 1977, two very different institutions tried, and their pairing captures the whole problem. In Kolkata, the tobacco and hotels conglomerate ITC founded the **ITC Sangeet Research Academy**, a residential campus where a small number of scholars live on stipends and learn from a resident guru in something close to the old immersive way, the maharaja's role now played by a corporation's balance sheet. In the same year a physics professor named Kiran Seth started SPIC MACAY, the Society for the Promotion of Indian Classical Music and Culture Amongst Youth, whose volunteers have since staged tens of thousands of concerts in schools and colleges. One institution pays the musicians; the other manufactures the listeners and future disciples without whom the paying is pointless. Between them they name the two halves of the economic question that patronage once answered with a single hand.

— Conservatories: the Standardized Flame

The institutional music school offered a different vessel entirely, and it entered India seriously through Vishnu Narayan Bhatkhande, the lawyer and musicologist whose long, productive argument with Vishnu Digambar Paluskar Chapter 19 recounted. Bhatkhande's Marris College of Music, founded at Lucknow in 1926 and now the university that bears his name, set out to take what had always been transmitted hand to hand and make it teachable in a classroom full of strangers. That required standardization, which required notation, which required choices. His scheme of ten thaats for sorting the ragas was a genuine intellectual achievement and a work-

able syllabus. It was also a reduction. Ragas that would not fit the grid were squeezed or dropped, and the years of proximity through which a guru conveyed what a raga is for did not survive translation into a lesson plan.

This is not a failure peculiar to Bhatkhande. It is the structural cost of formalizing anything. You can write down what a raga contains, its notes and turns and forbidden intervals, but not what it means, not fully, not the emotional and temporal territory it maps or the state it is meant to induce in a listener at a particular hour of the day. A student can emerge from a conservatory able to perform a raga correctly, in the narrow sense of hitting the right notes in the right order, without knowing the music the way the previous generation knew it.

China arrived at the same experiment from another direction. When Xiao Youmei founded the Shanghai Conservatory of Music in 1927, with the backing of the reformer Cai Yuanpei, he built the first modern institution in the country to teach European theory and Chinese tradition inside the same walls, and he refused to let the Chinese material be treated as the junior partner. Xiao had trained in Germany, at Leipzig, and knew the conservatory model from the inside. He died in 1940, before he could see either the flowering of what he built or its near destruction, when the Cultural Revolution branded the conservatory system elitist and drove its musicians to the countryside. When the doors reopened after 1976, the rebuilding stood on his foundations, often without saying so. The conservatory spreads knowledge wide, which is its gift, and it spreads it thin, which is its cost.

— The Iemoto and the Living Treasures

India is not the only civilization to have faced the transmission problem, and it is not the one that has formalized its answer most fully. Japan built a structure so close to the gharana that the comparison is almost exact. The **iemoto** system, consolidated in the Edo period Chapter 13 described, seats a hereditary headmaster at the top of each school, or *ryu*, of a traditional art. The iemoto controls the repertoire, licenses the teachers below him, and grants the professional stage-names that a student may use only with his permission. Like a gharana, a *ryu* is a house. Unlike a gharana, its authority is codified in something close to a franchise, with fees and certificates and a chain of command.

After the Second World War the Japanese state added a second layer above the schools. The Law for the Protection of Cultural Properties of 1950 created a category of Important Intangible Cultural Properties and recognized the individual masters who embodied them, the men and women the public came to call **Living National Treasures**. A Living National Treasure receives an annual grant from the state, and in return is expected to keep performing and, above all, to keep teaching. Korea followed in 1962 with a Cultural Properties Protection Law of its own, designating official holders of intangible arts such as pansori and the Jongmyo ancestral rite. Chapter 15 visited, each holder charged by law with training certified successors. Where India left preservation to lineages and private conscience, Japan and Korea made it an obligation of the state.

Above the nations sits an international layer. UNESCO's framework for intangible cultural heritage, formalized in the convention of 2003 and prefigured by a series of proclamations, has inscribed one Asian musical tradition after another: Kunqu opera in 2001, the guqin in 2003, gagaku in 2009. A listing brings prestige, tourism, and money, and it brings the danger the archive always brings, the risk of freezing a living practice into an exhibit of itself. The most thoughtful holders of these titles, in Kyoto and Seoul as in Kolkata, understand that the designation is a tool and not a destination, useful exactly insofar as it funds the next teenager at the next door.

— The Women the Tradition Forgot

For most of this history, the people who carried the largest share of the music were the very people the respectable world kept at arm's length. In the South, the devadasis, women dedicated to temples as dancers and musicians, were the primary custodians of the dance that became Bharatanatyam and of a deep repertoire of song. Their position outside ordinary domestic life was precisely what made professional artistry possible for them. In the early twentieth century a reform movement moved to end the devadasi system, driven partly by real concern about exploitation and partly by a middle-class discomfort with the sexuality attached to it. The Madras Devadasis Act of 1947 completed the abolition. The art was rescued for respectability; the women who had carried it were cut loose from their livelihood, and a body of social and musical knowledge that had lived in their practice was severed from the forms it once sustained.

The names deserve to be spoken. Veena Dhanammal, born in 1867, presided over a family whose Friday house-concerts set the standard for a generation, and whose descendants included the dancer Balasaraswati, the artist who defended the devadasi tradition's living art against those who wished to sanitize it. The debate between Balasaraswati and Rukmini Devi Arundale, the Theosophist who reinvented the same dance as the respectable Kalakshetra style, is argued in Chennai to this day. On the concert platform, D.K. Pattammal broke a double barrier, a woman from a Brahmin family singing in public and the first to perform the demanding ragam-tanam-pallavi that had been a male preserve. And M.S. Subbulakshmi traveled the whole distance from a devadasi-lineage household in Madurai to the General Assembly of the United Nations, where she sang in 1966, and became the first musician awarded the Bharat Ratna.

In the North the barrier was shaped differently but stood just as firm. The gharana was built around male descent. A woman inside a musician's family might absorb everything and still be forbidden the stage, expected to stop when she married, or confined to the household's private music. The knowledge was present; the permission to deploy it in public was withheld. The generation that finally broke through did so on several supports at once. Institutions created salaried positions that did not depend on the old patronage and its social arrangements. The recording industry could carry a woman's voice into homes without requiring her body on a stage. And individual women simply refused the restriction. Kishori Amonkar, daughter of the Jaipur-Atrauli singer Mogubai Kurdikar, became one of the commanding voices of the century. Girija Devi carried the semi-classical thumri of Banaras into the front rank of the concert world. Gangubai Hangal, who came from a family with courtesan roots and bore the stigma for most of her life, sang in a deep contralto into her nineties; India honored her with the Padma Bhushan in 1971 and the Padma Vibhushan in 2002, and the Bharat Ratna awarded to a Kirana singer in 2008 went to Bhimsen Joshi, not to her.

*The traditions that survive today are the
traditions that were allowed to survive.*

The traditions that survive today are the traditions that were allowed to survive, and the question of who was permitted to carry a music forward can never be separated from the question of what was carried. What Annapurna Devi might have given audiences, what the devadasis knew that was never written and is now partly gone, these are gaps in the record that no amount of archiving can fill, because the records were never made.

FIGURE

Annapurna Devi

Born Roshanara Khan in 1927, the daughter of Allauddin Khan, she learned from her father with an intensity that, by every account, matched her brother Ali Akbar Khan's. More than a few who heard her in private judged her the greater musician of the two.

She married Ravi Shankar in 1941. The marriage was unhappy, and when it ended she withdrew from the concert stage almost completely, giving next to no interviews and refusing nearly every invitation to perform for the rest of her long life. Whether this was principle, a conviction that music was too sacred for the modern stage, or something harder to name, has been argued for decades.

What is beyond argument is that she never stopped teaching. From her apartment in Mumbai she shaped a line of major musicians, among them the bansuri players Hariprasad Chaurasia and Nityanand Haldipur and the sarod player Basant Kabra. She was awarded the Padma Bhushan in 1977 and died in 2018, a master who reached the tradition almost entirely through the hands of other people.

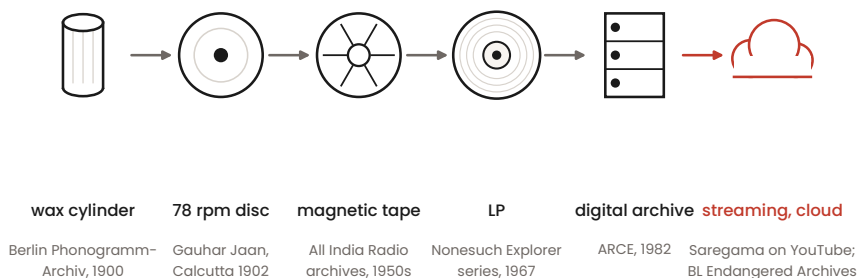
— Archives at Three in the Morning

The impulse to record a music before it disappears took organized form at the Berlin Phonogramm-Archiv, founded in 1900 by the psychologist Carl Stumpf and directed for decades by Erich Moritz von Hornbostel. Its founding holdings were wax cylinders of a Siamese court troupe that had performed in Berlin that autumn, and it grew into a collection of some thirty thousand cylinders of music from across the world, the laboratory in which comparative musicology and the Hornbostel-Sachs system for classifying instruments were built. Chapter 18 met these scholars at the horn

of the phonograph. Here we meet what they left behind, and how nearly it was lost.

The archive's own history is a parable of preservation's fragility. Evacuated during the Second World War, a large part of the collection was carried east into the Soviet Union and held for decades, first in Leningrad and later in East Berlin, and it was reunited in the city of its birth only after German reunification, the last cylinders finding their way home in the years that followed. In 1999 UNESCO added it to the Memory of the World register. A collection assembled to save vanishing music had itself very nearly vanished, and its survival, like the survival of the music on the cylinders, came down to individuals who refused to let the thread break. Digitization has since begun returning copies of the recordings to the communities whose ancestors made them.

HOW THE SOUND WAS KEPT



Every format that promised to save the music has itself needed saving. The chain in the figure runs from the brittle wax cylinder to the shellac disc, the magnetic tape that grows sticky with age, and the digital file that must be copied forward forever or die, each link outliving the last by only a few decades.

Since the middle of the twentieth century the recording expeditions have multiplied. The Smithsonian Folkways catalogue holds traditions that have since changed past recognition or fallen silent. The Archives and Research Center for Ethnomusicology near Delhi, under the American Institute of Indian Studies, keeps thousands of hours of Indian classical and

folk performance, including the voices of musicians long dead. In Tokyo, a national research institute has documented gagaku, noh, and kabuki since the postwar years. These collections are irreplaceable. They are also, in a hard sense, monuments to a kind of failure, the failure to build a world in which living traditions could sustain themselves without needing to be rescued by documentation.

You cannot apprentice yourself to a recording.

And a recording, however precious, is not a teacher. It captures the sound and sometimes the image, but not the relationship through which a tradition actually moves from one body to the next. You cannot apprentice yourself to a recording. It can be a reference, a historical document, a source of pleasure and study, and it is all of those things enormously. It is not transmission, and the difference decides what we have really saved when a music exists only in an archive.

--- Four Vessels

Step back and the four vessels resolve into four solutions to a single, unforgiving problem: music is ephemeral, human lives are short, and the knowledge built across generations is always one funeral away from loss. The gharana concentrates that knowledge in a lineage, which politics, poverty, or a single death can break. The conservatory spreads it wide and loses depth. The archive saves the sound and not the relationship. The apprenticeship saves the relationship and reaches almost no one. None of the four is sufficient by itself. What is genuinely new in the present age is that a tradition no longer has to choose among them.

FOUR VESSELS, AND THEIR PRICE

	what it preserves	what it loses
gharana	aesthetic personality, lineage depth	fragile economics, exclusivity
conservatory	broad access, standards	flattens house styles
archive	the sound itself, forever	cannot teach
apprenticeship	tacit knowledge, values	needs twenty years

Four vessels for one flame. The figure sets them side by side: the gharana concentrates and can be broken, the conservatory spreads and thins, the archive holds the sound but not the relationship, the apprenticeship holds the relationship but reaches few. The modern age is the first able to fill all four at once.

A raga can now be poured into all four vessels together, and the digital tools have reshaped the oldest of them most of all. A student in London can study with a guru in Kolkata over video, absorb a lineage’s recordings in a depth no court musician ever commanded, drill against a tanpura and tabla generated by an application, and still, when it matters, sit on the floor in the same room and learn the things that only proximity teaches. Online academies such as the Shankar Mahadevan Academy and IndianRaga enroll students by the tens of thousands; practice apps like Riyaz listen to a singer and mark the pitch in real time; Darbar, the London festival, streams high-definition raga performance to subscribers around the world. As of mid-2026 none of this has replaced the room, and the best teachers do not pretend that it has. It has widened the door.

Which returns us to the teenager in the lane, sweeping the room and learning to attend. Chapter 24 will ask what happens when a machine can imitate the sound at the end of all this labor without ever having done the labor. For now it is enough to see clearly who actually keeps these

traditions alive: the teacher who takes on a student she will know for thirty years, the woman who claimed the stage that was denied her mother, and the archivist who sits digitizing a crumbling cylinder at three in the morning so that a voice recorded in 1905 will still be there when someone, someday, is finally ready to listen. A tradition is not preserved when it is recorded. It is preserved when a person decides to give it twenty years of mornings, and then does.

LISTENING NOTES

♪ **Ali Akbar Khan, Music of India: Morning and Evening Ragas (1955)**

The first LP of Indian classical music released in the West; hear the dhrupad weight Allauddin Khan pressed into the sarod, carried by his son into a New York studio with Yehudi Menuhin speaking the introductions.

♪ **Kishori Amonkar, Sahela Re, Raga Bhoop**

The Jaipur-Atrauli gharana in a single performance; listen for how she suspends a five-note raga on the edge of stillness and makes the withheld notes do the work.

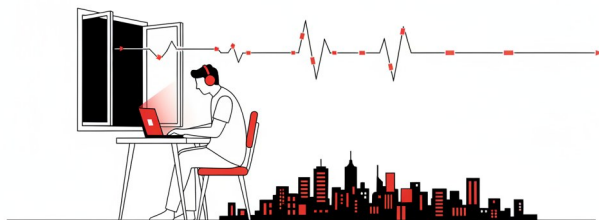
♪ **Hariprasad Chaurasia and Shivkumar Sharma, Call of the Valley (1967)**

The bansuri of one of Annapurna Devi's foremost disciples in a landmark trio recording; what a teacher who refused the stage gave to a student who filled it.

♪ **M.S. Subbulakshmi, Maitreem Bhajata (United Nations, 1966)**

The Carnatic voice that carried a devadasi lineage to the world's largest hall; the peace hymn she premiered before the General Assembly on United Nations Day.





THE LIVING TRADITION — CHAPTER 22

Streams and Screens: The Digital Revolution

A studio now fits inside a laptop, and a raga can reach Lagos before it reaches the next street. The digital age gave Eastern music the world's largest audience and its smallest paychecks, in the same decade.

1992 TO 2026

• MUMBAI, CHENNAI, LAHORE, SEOUL, SHANGHAI

धारा

dhara · the stream

There is a recording studio in Mumbai that exists entirely inside a laptop. This is not a figure of speech. The producer behind the screen has a library of several thousand samples, a digital audio workstation running sixty-four tracks at once, a small keyboard controller, a pair of monitors, and a hard drive holding more processing power than the entire facility that recorded the Bollywood soundtracks of the 1970s. He can record, mix, and master a song in a single day, upload it to a distributor that evening, and have it

on every major streaming service by morning. He does not need a record label. He does not need a booking agent, a publisher, or a pressing plant. He needs an internet connection and something to say.

A little over a century earlier, in a Calcutta hotel room, the singer Gauhar Jaan compressed a raga into three minutes, sang it into a brass horn, and at the end announced her own name so that engineers pressing the discs in Germany would know how to label the wax. Chapter 18 met her there, at the birth of recorded Eastern music. The distance from that horn to this laptop is the whole subject of this chapter, and it is not only a distance of technology. It is a distance of power, of money, and of who decides what the world gets to hear.

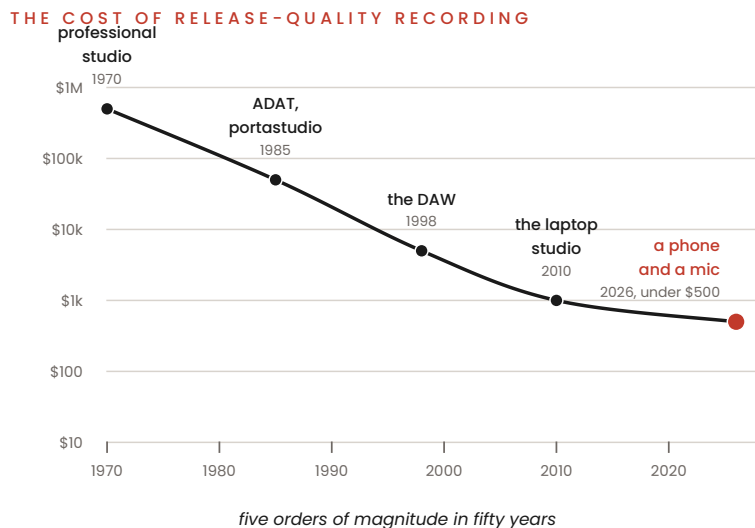
The digital age handed Eastern music the largest audience in its history and the smallest paychecks in its history, in the same decade, and the two facts are one fact seen from two sides. Everything about how the music reaches a listener has changed beyond recognition. The thing that actually happens when it arrives, the sound entering a body and doing its work, has not changed at all.

— The Studio in the Laptop

The home-studio revolution began in the West in the 1980s with affordable synthesizers and MIDI, and it reached South Asia, East Asia, and the Middle East on a slight delay before accelerating hard. By the early 2000s a musician in Chennai or Tehran or Jakarta could buy software and hardware that, while not identical to a professional room, came close enough to produce commercially releasable recordings. The **digital audio workstation**, the software that turns a computer into a multitrack studio, dissolved the barrier that had kept music production in the hands of a few companies and studio owners. The incumbent industry, organized precisely around that barrier, did not welcome the change. For the musicians the industry had always excluded, it felt like a door swinging open.

The producers who walked through that open door were rarely the established stars. They were younger and cheaper and scattered everywhere: a beatmaker in Chennai layering a Carnatic phrase over a trap rhythm, an oud player in Amman multiplying himself into a thirty-voice chorus, a teenager in Bali sampling the village gamelan into a dance track. What had once demanded a record company's budget and a booked studio now

demanded a laptop, a quiet room, and time. The gate that had guarded music-making for a century did not so much open as dissolve.



The price of a release-quality recording, from the union-scale orchestra sessions of the 1970s to a laptop in 2025. The curve in the figure falls by several orders of magnitude, which is the whole story of who now gets to make a record.

The curve has a shadow, and the rest of this chapter lives in it. When the cost of making music falls to almost nothing, the amount of music made rises to almost everything, and the problem shifts from production to attention. A door that opens for everyone opens for everyone at once. But before the flood, there was a demonstration, and it happened in Indian film music, where the stakes were commercial and the response was fast.

— Rahman Rewires Bollywood

Hindi film music had been made since the 1940s through a system of large, expensive sessions in which composers, lyricists, orchestras, and **playback singing**, the practice by which professional vocalists pre-record the songs that actors then mime on screen, produced the soundtracks that

carried the films. The system generated an enormous quantity of music and made household names of composers like S.D. Burman, R.D. Burman, and Laxmikant-Pyarelal. It also concentrated creative power in very few hands and answered to a cost structure that digital production was about to detonate.

A.R. Rahman is the name most bound up with what happened next, and the association is accurate, though the man's story is more specific than the legend around it. He was born in Chennai on 6 January 1967, as A.S. Dileep Kumar. His father, R.K. Shekhar, was a composer and arranger for Malayalam cinema, and he died when the boy was about nine, dropping the family into hardship and forcing them to rent out the father's instruments to survive. The son became a teenage session keyboardist, playing on other composers' dates, among them sessions for the Tamil film composer Ilaiyaraaja, and he won a scholarship to Trinity College of Music in London. Along the way he embraced Sufi Islam and took the name by which the world now knows him.

His first film assignment came in 1992: Mani Ratnam's *Roja*. Rahman scored it in a home studio he had built in Chennai around digital equipment, and the result did not sound like anything the industry had produced. It set South Indian classical melody against electronic production with a clarity and precision that cut through the prevailing style at once. *Roja* was an enormous success, and its composer became, almost overnight, the most sought-after figure in Indian cinema. What he had proved was structural. A musician working outside the Mumbai studio hierarchy, alone in a personal room with digital tools, could not merely match that hierarchy but outrun it. He refined the method across *Bombay*, *Dil Se*, and *Lagaan*, and in 2009 won two Academy Awards in a single night for *Slumdog Millionaire*, Best Original Score and Best Original Song for *Jai Ho*, the first Indian to take two Oscars in one evening. The prizes changed little about his standing with the billion listeners who had loved his work for seventeen years already. What they changed was the visibility of his method to a global industry then sliding into a digital crisis of its own.

A Chinese parallel makes the same point from the other side of Asia. Tan Dun, born in Hunan in 1957 and trained at the Central Conservatory in Beijing once the Cultural Revolution had ended, moved to New York in 1986 to study at Columbia University, and built a career on the seam between Chinese tradition and Western composition. His score for Ang Lee's *Crouching Tiger, Hidden Dragon* in 2000, built around Yo-Yo Ma's

cello as a bridge between the two idioms, won the Academy Award for Best Original Score and reached millions who had never consciously heard Chinese music. It is sometimes said that Tan Dun and Rahman were the only Asian composers to win that award; in fact the Japanese composer Ryuichi Sakamoto and the Chinese composer Cong Su had shared it back in 1988, for *The Last Emperor*. The recognition was real, but it was never the first of its kind, and Asian film music had never needed a Western trophy to know its own worth.

— Coke Studio: the Broadcast That Became a Bridge

If Rahman showed that one musician could replace a studio, a sponsored television programme in Pakistan showed that a broadcast could stand in for an entire music industry. Coke Studio Pakistan first aired on 8 June 2008, created by Rohail Hyatt, once the keyboardist of the pop band Vital Signs. The premise was simple and turned out to be radical. Bring folk singers, qawwals, and classical vocalists into a studio with a house band of rock and session players, record the collaborations live to camera in high production quality, and release them not as records but as videos on YouTube.

The context made it matter. Pakistan's domestic music economy had been hollowed out by piracy and a thin live circuit, and the state broadcasters that Chapter 19 described, the ministries that once decided what a nation could hear, had lost their monopoly on reaching an audience. Coke Studio handed musicians a national stage and, through YouTube, a global one. The most consequential border it crossed was the one with India, among the most heavily policed on earth, which Pakistani musicians can rarely tour across. The videos crossed it freely. Indian listeners who could not attend a Lahore concert watched from Delhi and Mumbai by the tens of millions.

The rock band Strings produced the show through its middle seasons; in 2022, for Season 14, the producer Xulfi, Zulfiqar Jabbar Khan, remade its sound, and it delivered the song that proved the model beyond argument. Ali Sethi and Shae Gill's Pasoori became the first Coke Studio or Pakistani track to reach the top of Spotify's Global Viral 50 and the most-Google'd song on earth that year, and it did all of it across a closed frontier. As of mid-2026 the show's sixteenth season is rolling out, drawing singers from Gilgit-Baltistan, Balochistan, and Khyber Pakhtunkhwa, and India has launched its own Coke Studio Bharat, first aired in 2023. A soft-drink advertisement

had become one of the most effective instruments of musical transmission in the region's history.

The format proved contagious. Coke Studio spawned versions from Africa to the Middle East, and rival sponsors launched their own series, but Pakistan's remained the template, partly because it kept faith with the country's deep traditions instead of papering over them. It carried the qawwali of Chapter 20 into the streaming age: Rahat Fateh Ali Khan, nephew and heir of Nusrat Fateh Ali Khan, brought the family's six-century lineage to a YouTube audience of hundreds of millions, and singers of Sufi kalam and Punjabi folk found, on the same stage, a route to listeners their genres had never reached. A show built to sell a soft drink had become a working museum that paid its exhibits to keep performing.

FIGURE

Pasoori

"Pasoori," released on 7 February 2022 as part of Coke Studio Pakistan's fourteenth season, was written by Ali Sethi with the producer Xulfi and sung by Sethi with Shae Gill. Sethi is a ghazal singer by training, and the song carries that lineage under its pop surface: a lilting Punjabi and Urdu lyric about love thwarted by division, riding a rhythm borrowed from the reggaeton the whole world was dancing to.

It became the first Pakistani song, and the first from Coke Studio, to climb Spotify's Global Viral 50 to number one. It was the most-Googled song on the planet in 2022. It crossed a billion views on YouTube, a milestone reported by January 2025, and became the most-streamed Pakistani song in Spotify's history.

Most remarkable is where it traveled. India and Pakistan share almost no open cultural channels; their artists cannot tour each other's countries and their broadcasts are blocked. "Pasoori" reached India anyway, through the one door left open, and was covered, remade for a Bollywood film in 2023, and folded into a Marvel series watched worldwide. A song about a border became the thing that crossed it.

— The Economics of a Fraction of a Cent

Streaming rearranged the money, and the new arrangement bears down on long-form traditional music with a peculiar cruelty. Spotify, launched

in 2008, sells access rather than ownership: a listener pays a flat monthly fee for a library of tens of millions of tracks, and the pooled subscription money is divided among rightsholders by share of total plays. A play registers once the listener passes roughly thirty seconds, and it registers as a single play whether the track is a three-minute pop single or a forty-minute alap. Measured by the hour of music actually made, the classical performer earns a fraction of the pop single's already tiny rate.

A raga and a pop song each count as a single play, no matter that one of them lasts forty minutes.

A raga and a pop song each count as a single play, no matter that one of them lasts forty minutes, and the mechanism tightened further in 2024, when Spotify stopped paying royalties on any track that fails to reach one thousand streams in a rolling year. For a chart single that threshold is nothing. For a niche recording by a Persian santur master or a young Carnatic vocalist, a thousand plays can represent a year of real reach, and below that line the payment is now simply zero. The penalty is not a matter of the algorithm's taste. It is arithmetic, and the arithmetic disfavors depth.

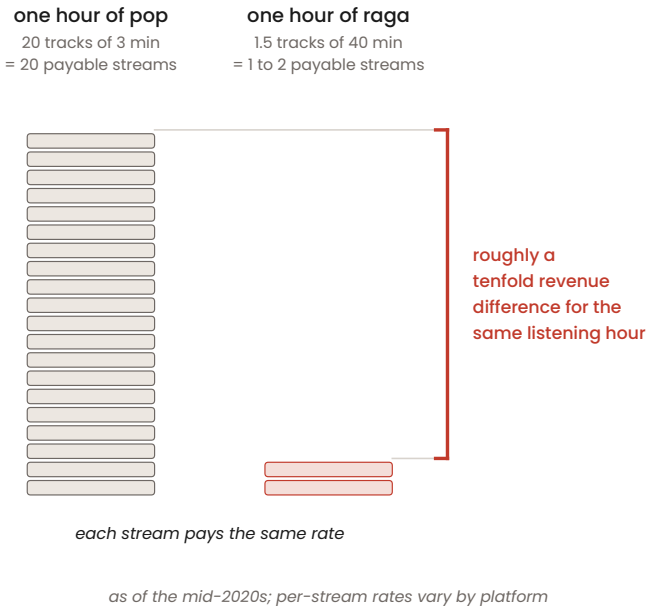
India, as it happens, had already built its first digital music economy on a different mechanism. Through the 2000s, before smartphones arrived, the **ringback tone**, the clip of a film song a caller heard in place of the ring, became a major revenue stream: hundreds of millions of subscribers paying small monthly fees to their mobile carriers to play thirty seconds of Bollywood to anyone who phoned them. For a few years it was among the most lucrative music formats in the country, and it vanished as quietly as it came once streaming took hold.

Against the pooled-royalty squeeze, some musicians turned to selling straight to listeners. Bandcamp let artists sell recordings and keep most of the price; Patreon let fans subscribe to the musicians themselves. For traditions in which commercial recording had never paid well, being paid **direct-to-fan**, by the people who actually listen, was something new and genuinely hopeful. But the model rewards those who already have an audience, and its infrastructure proved fragile. Bandcamp was bought by the

game company Epic in 2022, sold again to Songtradr in 2023, and shed much of its staff in the transfer, a reminder that direct-to-fan still runs on platforms that someone else owns and can sell out from under it.

Underneath the platform quarrels lies a harder number. For most musicians, not the handful at the top, recording revenue has fallen close to zero, and the fall lands with particular force on the traditions this book follows. A pop single can recoup its tiny per-stream rate across tens of millions of plays. A Hindustani performance that took twenty years of mornings to make possible, the transmission Chapter 21 watched pass from teacher to student, will draw a fraction of those plays at the same fractional rate. If devoted practice can no longer be funded by the recordings it produces, it has to be funded some other way, by teaching, by touring, by a day job, or by a patron, which returns the music to the very dependency the digital age was supposed to end.

THE LENGTH PENALTY

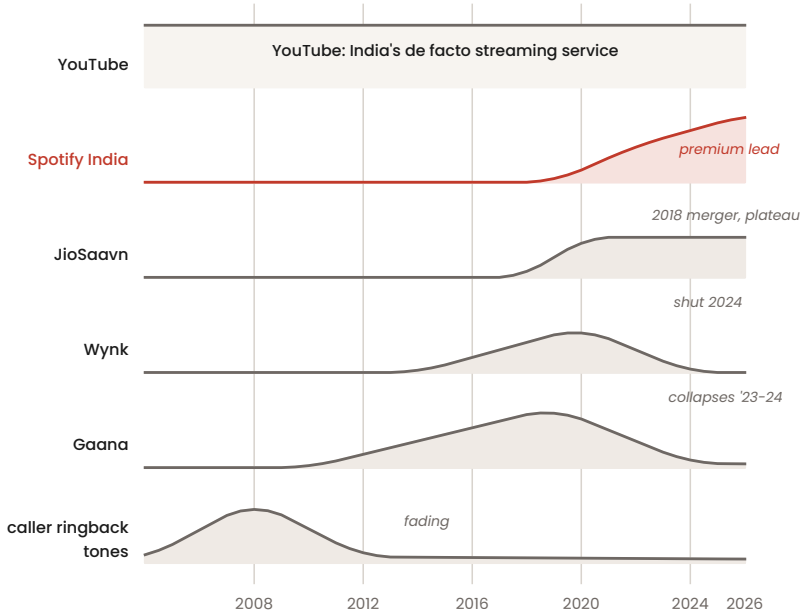


One listener-hour, two payouts. The figure sets twenty three-minute pop plays against a single forty-minute raga, counted once, and shows how, by the minute of music, streaming pays a traditional form a fraction of a fraction of a cent.

— Platforms Rise and Fall

The services that deliver the music have risen and collapsed with a speed that makes any snapshot perishable. India in the 2010s spawned a crowd of home-grown platforms, Gaana, JioSaavn, Wynk, Hungama, each better tuned to South Asian taste than the Western incumbents and generous with regional-language film music. By the middle of the 2020s the crowd had thinned brutally. Wynk, run by the telecom operator Airtel, shut down in 2024. Gaana collapsed into a subscription rump. Spotify, which entered India in February 2019, came to lead the paid tier, with JioSaavn surviving inside the Reliance empire.

INDIA'S STREAMING PLATFORMS, 2008 TO 2026



Rise and consolidation, 2008 to 2026. The figure maps India's home-grown services swelling and then folding into a YouTube-and-Spotify order, while China's walled platforms grow on a separate track behind the firewall.

As of mid-2026 the single most important music service in India is not, strictly speaking, a music service at all. It is YouTube: free, ad-supported,

and the place most listening actually happens. The most-subscribed channel on the entire platform belongs to T-Series, the Delhi label that grew out of the cassette trade and descends, further back, from the very Gramophone Company of India that recorded Gauhar Jaan in 1902. The line from the brass horn runs directly to the world's largest video channel, and Saregama, another heir of that 1902 operation, now monetizes its century-deep catalogue the same way, one licensed clip at a time.

China ran on a separate grid entirely. Behind its firewall, QQ Music, NetEase Cloud Music, and Kugou, most of them under the umbrella of Tencent Music, carried Mandopop and C-pop to an audience that had never much used the Western services, inside a regulatory environment that shaped what could be posted and promoted. The Chinese platforms matched their global rivals in catalogue size and technical polish while answering to a different set of rules, a parallel universe of streaming as large as the one outside and largely invisible from it.

Bollywood, for its part, never had the discovery problem. Hindi film music always commanded a mass audience, and that audience moved to streaming almost intact, making film songs among the most-played tracks in what had become one of the largest music markets on earth. The bigger surprise was regional. The Tamil, Telugu, Malayalam, and Kannada film industries, each with its own composers and its own sound, found listeners far beyond their home states, across a global diaspora and among non-Indian fans who stumbled onto the music through a video and stayed. A song in a language the listener could not speak had stopped being a barrier. It was becoming, more and more often, part of the draw.

— The Algorithm Doesn't Know What a Raga Is

Accessibility, it turned out, did not automatically produce listeners. A person in Warsaw could now summon Carnatic music, Persian classical, or Korean gayageum with a few keystrokes, and the catalogue depth dwarfed any record shop that ever existed. But the systems that made those catalogues navigable were built to recommend more of what a listener had already chosen, and the interface was not designed to reward the effort that genuinely unfamiliar music demands. The playlist, which became most people's way of organizing sound, sorted by mood and tempo. A Hindustani alap might surface on a list called Peaceful Morning, between an am-

bient track and a singer-songwriter from Nashville, telling the newcomer nothing about what it was or what kind of attention it asked.

*Accessibility did not automatically produce
listeners.*

The recommendation engines learned from behavior, and the behavior they learned from belonged to a mostly Western user base. Music from a tradition with a smaller listener population drew less algorithmic promotion, which won it fewer new listeners, which slowed its growth, which earned it still less promotion. No one designed the loop to marginalize a raga; it was the ordinary result of optimizing for engagement in a market already shaped by a century of Western commercial dominance. Apple eventually spun off a separate Classical app to handle the metadata that pop-shaped databases mangle, the movements and soloists and ragas, but the deeper problem was structural rather than clerical. What happens when the algorithm can not only recommend a raga but generate one is a question Chapter 24 takes up.

The decontextualization cuts deep because so much of this music was never meant to float free. A raga keeps a time of day; a qawwali builds across forty minutes toward a collective climax; a piece of gagaku belongs to a particular rite. Stripped of that frame and dropped into a mood playlist between a lo-fi beat and a recording of whale song, the music still sounds, but it no longer means what it was built to mean. The platform delivers the notes and discards the occasion, and for traditions in which the occasion was half the music, that is a quiet kind of loss that no play count will ever record.

And yet the same machinery could astonish everyone. A shamisen player performing video-game themes, a Turkish oud virtuoso playing Bach, a young sarangi student in a bedroom, any of them might catch an updraft and reach millions who had never gone looking for the sound. The algorithm that buried a tradition on Monday could, by an accident of virality, hand it a global audience on Tuesday. That double character, indifferent by default and miraculous by chance, defines the whole platform era, and its purest expression is the short video.

— Short Form, Long Tradition

Short-form video changed not only how music travels but what music is made to be. TikTok, global from around 2018, ran on virality: a fifteen-second fragment of something startling could reach millions within days, with no prior audience, no marketing budget, and no industry behind it. India, among TikTok's largest markets, banned the app in June 2020 amid a border confrontation with China, and the audience migrated within weeks to Instagram Reels and YouTube Shorts, which had rushed to copy the format. The form began to bend the songs themselves. A track now often lives or dies on a fifteen-second hook engineered to loop, and the album gives way to the clip. All of it, the making and the selling and the discovering and the hearing, has collapsed onto a single device in the listener's hand.



One glass rectangle is now the studio, the stage, the shop, and the radio at once: the phone on which the music is made, uploaded, sold, discovered, and heard, a whole industry folded into a palm.

Some of what surfaced this way had real depth. Arooj Aftab, a Pakistani singer trained at Berklee who works a spare, minimalist idiom out of Urdu poetry and jazz, built her audience partly through the networks the new platforms made, helped along when Barack Obama placed her song *Mohabbat* on his 2021 summer playlist. At the 2022 ceremony she won the Grammy for Best Global Music Performance for that song, the first Pak-

istani musician ever to win a Grammy. The path from a personal recording to that stage had not existed a generation earlier.

No one worked the platforms more deliberately than the Korean pop industry. K-pop's companies turned distribution into a discipline of its own: coordinated streaming by organized fan armies, world-record chart pushes for music videos, and dedicated apps such as Weverse that fold the fan community, the merchandise, and the release calendar into one managed channel. The music is largely Western in idiom, but the machine that carries it is a Korean invention, and the traditional gugak musicians whom Chapter 23 will meet have studied its reach closely.

The strangest case ran backward in time. Around 2017 and 2018 YouTube's recommendation algorithm began pushing a 1984 Japanese record, Mariya Takeuchi's *Plastic Love*, to listeners who had never heard of it, and Japanese city pop of the 1980s found a worldwide audience four decades late, spreading further on TikTok. Music that its own country had half-forgotten came back through the very machinery that buries so much else, the algorithm serving, for once, as an accidental archivist. The loudest current surge, meanwhile, is Punjabi. Diljit Dosanjh played Coachella in 2023, the first Punjabi artist on that stage, and toured stadiums singing entirely in Punjabi, while AP Dhillon and a wave of Punjabi-Canadian artists carried the language onto global charts from Brampton and Vancouver. A regional music, diaspora-powered and platform-native, went worldwide without once asking a Western gatekeeper's permission.

None of this reach comes free of a new demand. The attention economy is ferociously competitive, and the skills it rewards, producing short videos, posting without pause, reading the moods of an algorithm, are not the skills that master a raga or a maqam. Many serious musicians have found the two ways of spending a day simply incompatible, and have either abandoned the online game or hired someone to play it for them so they can keep practicing. Whether the digital revolution has, on balance, been good for Eastern music is a question with two true answers that cannot be pulled apart. More people hear Indian classical, Persian classical, and Chinese opera than at any moment in history, nearly all of them by digital means, and the same economics that carried the music so far have made the devoted life behind it harder to sustain.

There is a scene that has grown common at concerts of Indian classical music. Among the older listeners who have come for decades sit young people who first met the music through a video, followed one link and then

another, and eventually walked into a hall to hear it live. They are often unsure of the etiquette, not certain when to applaud or what a transition means, but they are listening hard. The musician on stage, who may well have posted the clip that started the chain, looks out at them and keeps playing. This is how transmission has always worked: someone makes a sound, someone else hears it, and something passes between them. The medium changes. The transaction does not.

LISTENING NOTES

♪ **A.R. Rahman, Roja original soundtrack (1992)**

The record that rewired Indian film music; hear South Indian classical melody set against home-studio electronics with a clarity nothing in Bollywood then possessed.

♪ **Ali Sethi and Shae Gill, Pasoori (Coke Studio Pakistan, Season 14, 2022)**

The song that crossed a closed border; listen for the ghazal singer's ornament riding a reggaeton pulse, tradition and global pop locked together.

♪ **Arooj Aftab, Mohabbat, from Vulture Prince (2021)**

The performance that won the first Grammy for a Pakistani musician; a slow, minimalist unspooling of Urdu poetry that rewards the attention the algorithm rarely asks for.

♪ **Tan Dun, Crouching Tiger, Hidden Dragon original score (2000)**

Yo-Yo Ma's cello used as a bridge between Chinese and Western idioms; the hybrid that carried the erhu and Chinese percussion to an audience of millions.

♪ **AP Dhillon and Gurinder Gill, Brown Munde (2020)**

The Punjabi-Canadian breakout that went global from a bedroom studio; proof that a regional language could conquer the charts with no gatekeeper's blessing.





THE LIVING TRADITION — CHAPTER 23

New Hands, New Sounds: Contemporary Innovators

Mastery is what makes innovation possible: you have to know which rules are load-bearing before you can bend the rest. Meet the players rebuilding thousand-year traditions in real time.

1990 TO 2026

• MUMBAI, BEIJING, SEOUL, ULAANBAATAR, BROOKLYN

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xin · the new

The clip runs about four minutes, and it has been watched many millions of times. A concert hall in California, late in the nineteen nineties. Zakir Husain sits cross-legged behind his tabla, right hand poised over the smaller dayan, left hand resting on the bass-voiced bayan, and for the first thirty seconds he plays exactly what a listener schooled in the tradition expects: crisp, rapid strokes, the theka of the tala turning underneath like a wheel.

Then something shifts. He begins to pull sounds out of the drums that

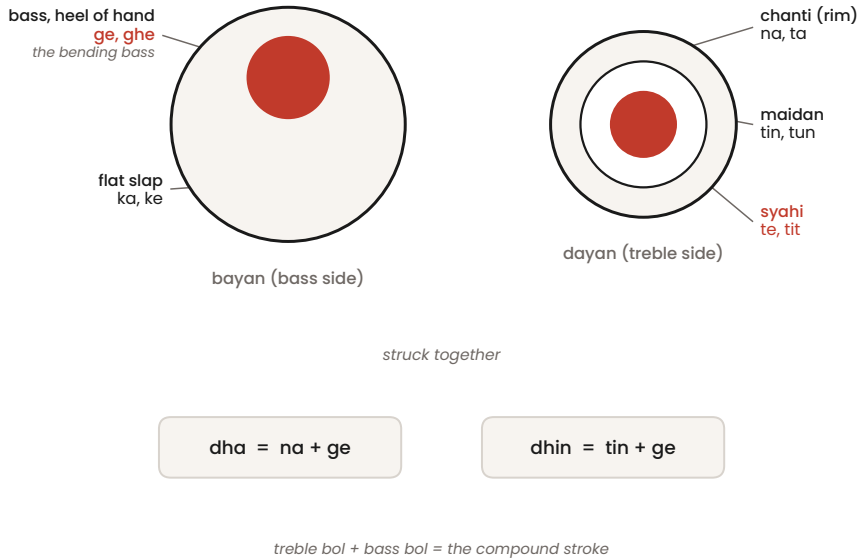
seem to have no business being there: a pitched scrape that rises like a question, a muted thump with the growl of a bass guitar, a stuttering flutter closer to a snare roll than to anything in the inherited repertoire. You can hear the audience gasp. It is a single sound, hundreds of people inhaling at once. Hussain smiles without looking up.

He knows exactly what he is doing. He has been doing it, in one form or another, since he was a small boy sitting beside his father, Alla Rakha, in the film studios of Bombay, and that gasp is the sound this chapter is about. What the audience hears as transgression, the player experiences as fluency, because true mastery of a traditional form does not constrain innovation; it makes genuine innovation possible, because the musician knows exactly which rules are load-bearing and which can be bent. That is this chapter's whole argument, and it holds from Mumbai to Beijing to Seoul to Ulaanbaatar: the most radical traditional music of the early twenty-first century is being made by the most rigorously trained hands alive.

— The Gasp in the Hall

Begin with what the gasp misunderstands. The tabla is not an open field on which a drummer may wander; it is a spoken language. Every legal stroke has a name, a syllable you can say before you play it. Na rings on the rim of the dayan under the index finger. Tin sounds the same head, damped differently. Ge booms from the bayan as the heel of the left hand presses the skin. Say two together and you get dha, the composite stroke that anchors the theka of tintal. The black disc of hardened paste at the center of each head, the siyahi, loads the skin so that the bayan can bend its pitch under a sliding wrist, a swoop you feel in the chest more than hear. The figure maps this geography: strike zones on the two heads, and the named bols that live at each address.

TABLE: STRIKE ZONES AND THEIR BOLs



Each named bol is a recipe, a strike zone plus a hand shape; the tabla's vocabulary is spoken aloud before it is ever played.

Everything Hussain played that night sits adjacent to a named address. The bass-guitar growl is a bayan technique extended; the snare flutter is a dayan roll displaced; the scrape is the siyahi itself made audible. None of it is outside the language. It is the language, conjugated further than the textbooks go. A grammar that precise does not forbid new sentences. It is what makes new sentences possible, and what makes them intelligible when they arrive.

*The audience hears impossibility. The player
hears vocabulary.*

Chapter 20 drew a line between costume and conversion, between the sitar as a sound effect and the decade spent inside another music. This

chapter is about a third thing: the heirs themselves, the players who inherited a tradition whole and are rebuilding it from inside, in public, at streaming scale. Their experiments reach millions where their grandparents' reached hundreds, and the scale has changed the stakes.

— Zakir Hussain's Last Decade

Hussain was born in Bombay on 9 March 1951, the eldest son of Alla Rakha, the tabla master the world had watched beside Ravi Shankar at Monterey. He began learning at three, was performing by his early teens, and moved to the United States in 1970, where the collaborations multiplied: Shakti with John McLaughlin, whose first act Chapter 20 told; Planet Drum with Mickey Hart of the Grateful Dead, which took the first Grammy ever given in the world music category; the trio Sangam with the saxophonist Charles Lloyd. The collaborations worked because of what he brought to them: a technique so complete that it amounted to freedom.

His last decade did not slow; it gathered. On 4 February 2024, at seventy-two, he won three Grammys in a single night, the first musician from India ever to do so. This Moment, the reunion album by Shakti, took Best Global Music Album. As We Speak, with the banjoist Bela Fleck, the bassist Edgar Meyer, and the bansuri player Rakesh Chaurasia, took Best Contemporary Instrumental Album, and the same quartet's "Pashto" took Best Global Music Performance. Forty-six years separated Shakti's previous studio record from its Grammy; Hussain had spent them proving that the deep end of fusion was survivable, and fertile.

Ten months later he was gone. He died in San Francisco on 15 December 2024, of complications from idiopathic pulmonary fibrosis, at seventy-three. The obituaries reached for the word ambassador, and it was accurate as far as it went, but the better word is the one his students use: proof. Proof that total command of an inherited language and total openness to every other music are not opposites. They are the same discipline, facing two directions.

FIGURE

Zakir Hussain

Born in Bombay on 9 March 1951, the eldest son of the tabla master Alla

Rakha, Zakir Hussain liked to tell the story that his father's first gift to him, days after his birth, was rhythm syllables whispered into his ear in place of a prayer. He was touring by his teens and in America by 1970, where he became the connective tissue of half a century of East-West music: Shakti with John McLaughlin, Planet Drum with Mickey Hart, film scores, duets with everyone from Charles Lloyd to Bela Fleck.

On 4 February 2024 he won three Grammys in one night, including Best Global Music Album for Shakti's reunion record *This Moment*: no Indian musician had ever done it. On 15 December 2024 he died in San Francisco of idiopathic pulmonary fibrosis, at seventy-three.

The ten months between those dates gave his life the shape of a finished composition: a final cadence landing exactly where the theme began, in a family that speaks rhythm as a first language.

— Anoushka's Third Act

Anoushka Shankar began formal sitar lessons with her father at nine and walked onstage with him at thirteen. The weight of that situation is hard to overstate. Ravi Shankar was not merely famous; for much of the world he was the symbol of Indian classical music itself, and growing up in that shadow could have produced paralysis or imitation. She chose neither. Her first act stayed close to the classical repertoire she had been raised inside. Her second began with *Rise* in 2005, which set her sitar against electronic production and orchestral color, and continued through flamenco collaborations that treated the two traditions as long-lost cousins rather than strangers. The aesthetic framework for a sitar that could do all this did not exist when she started. She is one of the people who built it.

Her third act is the quietest and the most complete. Between 2023 and 2025 she released a trilogy of linked mini albums: *Chapter I: Forever, For Now*, made with Arooj Aftab, the Pakistani singer whose own Grammy *Chapter 22* recorded; *Chapter II: How Dark It Is Before Dawn*; and *Chapter III: We Return to Light*, with Alam Khan, son of the sarod master Ali Akbar Khan, and the drummer and producer Sarathy Korwar. The form itself is an argument: three short records tracing one night, dusk to dawn, the raga's oldest dramaturgy rebuilt at playlist length without surrendering to the playlist.

November 2025 brought her twelfth and thirteenth Grammy nominations, more than any Indian woman in the award's history. At the cere-

mony in February 2026 she lost again, as she has every time; the global album prize went to the Brazilian siblings Caetano Veloso and Maria Bethânia. The asymmetry with her father, who won the first Grammy ever awarded to an Indian musician, says less about her than about categories built for albums that resolve in four minutes. The scoreboard measures one thing. The framework she built, in which a sitar can stand at the center of contemporary music without costume or apology, measures another.

— Wu Man Rebuilds the Pipa

The pipa, the pear-shaped lute that arrived over the Silk Road and settled into two thousand years of Chinese music, entered the modern conservatory system with its repertoire intact and its future uncertain. Wu Man, born in Hangzhou in 1963, trained at the Central Conservatory in Beijing, won the first national pipa competition China ever held, and graduated in 1985. Then she moved to the United States, and the move proved decisive. In America she was a stranger, which meant she could approach her own instrument as an outsider as well as an insider.

What she did with that double vision was commission a future. She brought the pipa to composers who had never written a note for it: Lou Harrison, whose concerto for her appeared in 1997; Terry Riley, whose *The Cusp of Magic* paired her with the Kronos Quartet in 2004. She became a founding voice of the Silk Road Ensemble, alongside the tabla player Sandeep Das and the shakuhachi player Kojiro Umezaki whom Chapter 20 introduced. Because her collaborators had no preconceptions, she had to explain the instrument's capacities from first principles, and the explanations became pieces. Young pipa players in China now study that repertoire beside the classical suites, which is the quietest possible definition of success.

A generation younger, Wu Fei ran the route in reverse. Born in Beijing and rigorously trained on the guzheng, the twenty-one-string zither, she came to the United States for graduate school and took a composition degree at Mills College in Oakland. What she heard in American folk music, particularly the string bands of the rural South, was a shared plainness: melody first, ornament in service of the line. Her 2020 duo album with the clawhammer banjo player Abigail Washburn, released on Smithsonian Folkways, interleaves Chinese folk songs and Appalachian tunes until the seams stop mattering, the two women trading verses across lan-

guages. There is a difference between music that uses elements from two traditions and music that discovers a genuine shared territory. The first is relatively easy. The second took both women their whole lives to date, which is why it sounds effortless.

China's own internet, meanwhile, has become an unlikely conservatory. The Zi De Guqin Studio, a Shanghai ensemble that films exquisitely costumed performances of guqin, xiao, and percussion, has drawn tens of millions of plays on the video platform Bilibili, part of the broader **guofeng** revival, the "national style" wave in which young Chinese urbanites wear Ming-cut robes and queue for zither lessons. The scholar's instrument of Chapter 11 acquired a comment section, and the comment section turned out to be full of students.

— Korea's Gugak Wave

No country has electrified its tradition more deliberately than South Korea. The umbrella term is **gugak**, "national music," covering everything Chapter 15 described: the glacial court suites, the twelve-stringed gayageum, pansori's rasping epics. For decades gugak was medicine, taught in schools and lightly endured. Then a generation of conservatory graduates stopped apologizing for it.

Jambinai came first: three classmates from the Korea National University of Arts, Lee Il-woo on guitar and the piri oboe, Kim Bo-mi on haegeum fiddle, Sim Eun-yong on geomungo zither, who play their court-trained instruments through distortion at post-metal volume. Their albums *A Hermitage* and *Onda* build from a whisper of silk string to an avalanche, and they closed the Pyeongchang Winter Olympics in 2018 before a global audience. Listen for the moment in *Onda* when the geomungo's stick-struck growl surfaces through the noise: Chapter 15's aesthetics, alive inside a metal band's dynamics.

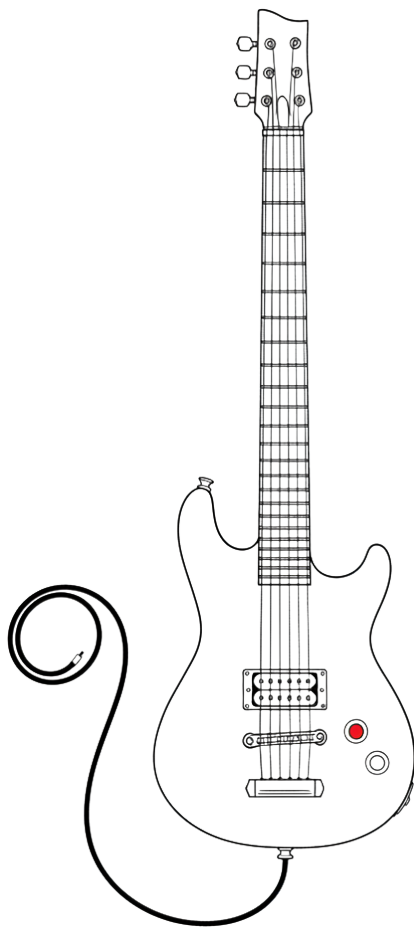
Around them, a scene. Black String, led by the geomungo master Heo Yoon-jeong, improvises with jazz guitar on the German label ACT, treating sanjo's tension-and-release as a language jazz already half speaks. LEENALCHI strips pop to bass and drums and sets four pansori singers on top; their "Tiger Is Coming," drawn from the pansori *Sugungga*, soundtracked the "Feel the Rhythm of Korea" tourism films that gathered hundreds of millions of views in 2020. Ak Dan Gwang Chil, known as ADG7, formed in 2015 to mark seventy years since liberation, turns the shaman

ritual songs of Hwanghae Province, territory now in North Korea, into ecstatic festival pop fronted by three singers in pop-art hanbok.

The wave is regional, not merely Korean. In Japan, the Yoshida Brothers made the tsugaru-shamisen a stadium instrument, and Wagakki Band, fronted by a champion of classical poetry recitation, fused koto, shakuhachi, and taiko with rock guitars for tens of millions of streams. From Ulaanbaatar, The HU built what they call hunnu rock on **khoomui**, the Mongolian throat-singing technique in which one singer sounds a drone and a whistling melody at once, and on the horsehead fiddle; their videos went globally viral in 2018, and their album *The Gereg* followed in 2019. Every one of these bands is built on years of formal training. The gasp in the hall, again: what reads as sacrilege from outside is fluency from inside.

— The Electric Lineage

Electric versions of Asian instruments are older than they look. The 1960s produced electric sitars in Western pop, mostly as novelties, costume in Chapter 20's sense. The serious work came later and from the inside, driven by virtuosos who wanted volume, sustain, and new colors without abandoning technique. Niladri Kumar, a fifth-generation sitarist, built the **zitar**: a slimmed, five-string sitar with magnetic pickups that can hold a note like a rock guitar while his right hand keeps the classical stroke patterns intact. It is not a compromise instrument; it is a translation, made by someone bilingual from birth.



Niladri Kumar's zitar keeps the sitar's neck, frets, and stroke technique but swaps the gourd resonator for pickups and sustain, a translation made from inside the tradition.

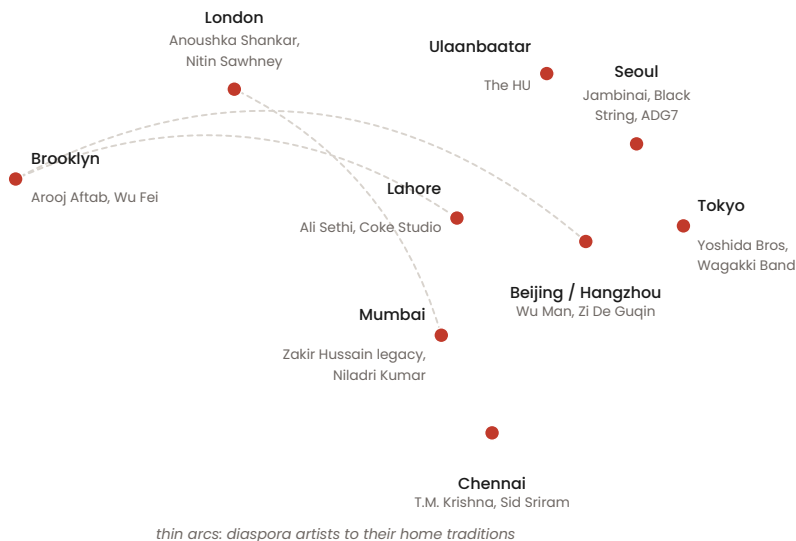
The erhu has its own electric lineage. George Gao, born in Shanghai and long based in Toronto, designed the Shaoqin, an electric erhu named for himself, to carry the instrument into concert halls and film scores at any volume. Ma Xiaohui, whose erhu sang the love theme of *Crouching Tiger, Hidden Dragon* in 2000, has carried the acoustic instrument to the same places by amplification and force of phrasing. The trade-offs are real. Take away the python-skin resonator and you lose some of the acoustic erhu's particular blend of nasal edge and singing sweetness; you gain in-

definite sustain and a straight line into effects processors. The musicians who choose the electric route tend to know precisely what they are spending and what they are buying.

Alongside new hardware came **extended techniques**, ways of playing that lie outside an instrument's conventional vocabulary: guzheng players preparing their strings with small objects in a borrowing from John Cage's prepared piano, pipa players importing flamenco's percussive attack, Hussain's cartography of unnamed strike zones. The borrowings occasionally spark arguments about attribution, though the arguments burn hotter in seminar rooms than between musicians, who mostly ask whether the sound works.

The producers completed the circuit. Midival Punditz, the Delhi duo of Gaurav Raina and Tapan Raj, layered tabla and sitar into club music in the late nineteen nineties, extending the Asian Underground that Chapter 20 traced through London. In Tokyo, DJ Krush folded shakuhachi and other traditional timbres into the beat structures of his 2004 album *Jaku* with a subtlety that rewards headphones. Priya Ragu, born to Sri Lankan Tamil parents in St. Gallen, Switzerland, moves between Carnatic melodic contour, R&B production, and Tamil lyrics without ranking them. Sid Sriram, Chennai-born, California-raised, and Carnatic-trained by his mother, alternates December Season concerts with Tamil film playback and American soul. Ali Sethi, trained in Lahore in the Hindustani tradition under Ustad Naseeruddin Saami, wrote "Pasoori," the borderless hit Chapter 22 followed around the world. What is new about this generation is not the mixing; it is that they grew up with every tradition simultaneously present, none of them foreign. The mixture is the language. Map the teachers, bands, labels, and scenes of this chapter and no one stands alone; the web in the figure looks less like fusion's old one-way bridge and more like a road network.

CONTEMPORARY INNOVATORS, CITY BY CITY



Teachers, ensembles, labels, and scenes connecting this chapter's innovators; almost every act sits two steps from a conservatory and two steps from a rock stage.

— Carnatic Dissent: T.M. Krishna

On a winter evening in Chennai, a Carnatic kutcheri unfolds not in a sabha hall but on sand, between fishing boats, at Urur Olcott Kuppam, a village the concert city grew around and learned not to see. The singer is T.M. Krishna, one of the most gifted Carnatic vocalists of his generation, and the venue is the argument.

Krishna's 2013 book *A Southern Music: The Karnatik Story* made the case that the modern kutcheri, codified in the long nineteenth century Chapter 17 described and institutionalized by the Madras Music Academy of Chapter 19, is inseparable from caste: an art carried for centuries by hereditary performers, then consolidated as the property of Brahmin Chennai. His response was not to leave the music but to move it. With local activists he co-founded the Urur Olcott Kuppam Vizha, a festival that brings the classical repertoire to the beach and fisherfolk's art to the concert stage,

and he has set the poetry of the novelist Perumal Murugan and sung in spaces the tradition never visited. The Ramon Magsaysay Award, Asia's most prominent honor for public service, cited him in 2016 for this social conscience in art.

The tradition answered in 2024. When the Music Academy named him Sangita Kalanidhi, its highest title, the sisters Ranjani and Gayatri withdrew from the season in protest, the Trichur Brothers followed, and the veteran Chitravina N. Ravikiran returned the same title he had received in 2017. A suit by M.S. Subbulakshmi's grandson reached the Madras High Court, which let the award proceed but ordered her name stripped from it. The fight was never really about one singer. It was about who owns a tradition: the institutions that codified it, the castes that carried it, or anyone with the discipline to learn it. Chapter 24 carries that question, who gets to sing, into the age of the artificial voice.

— The Ground Under New Feet

Every innovation in this chapter still begins with wood, skin, silk, and bamboo, and the ground is shifting under all of them. In January 2017 the entire Dalbergia genus, the rosewoods prized for sitar and veena bodies, came under the trade controls of CITES, the endangered-species convention; touring musicians suddenly needed permits for their own instruments, and some saw them seized at borders. The rules were sane for logs and absurd for lutes, and in 2019 the convention's Geneva conference carved out an exemption for finished musical instruments, to audible relief from orchestras and gharanas alike. The pressures remain: the erhu's python skin brings its own paperwork, and makers now ship synthetic-skin erhus for export as standard. The panel below tallies the materials, the rules, and the substitutes: carbon-fiber shakuhachi that many players now accept as serious instruments, stable where bamboo cracks; plantation hardwoods; resin in place of ivory.

THE MATERIAL QUESTION

instrument	traditional material	status & alternative
sitar & sarod	Indian rosewood (Dalbergia)	CITES-listed 2017 2019 exemption; toon wood alt.
erhu	python skin	CITES-regulated synthetic membranes now common
shakuhachi	madake bamboo root	supply pressure plastic & composite bores
koto	paulownia	sustainable plentiful, low concern
oud	rosewood & ebony veneers	substitutes in walnut & maple

CITES listings since 2017 reshaped the tonewood trade

Endangered materials, their CITES status after the 2019 finished-instrument exemption, and the substitutes makers have learned to trust.

Then the ground shifted again. In the spring of 2020 the pandemic silenced every concert hall at once, and the traditions that live by presence had to learn transmission by wire. Low-latency audio tools, JackTrip, born at Stanford, and the open-source SonoBus, let musicians in different cities play together with delays measured in milliseconds; gurus taught talim over tablets; and when the halls reopened, the streams did not close. Hybrid concerts, hi-definition raga platforms like Darbar’s, and around-the-clock listening channels are now permanent architecture, Chapter 22’s economics annexing Chapter 21’s pedagogy.

Strip away the novelty and the machinery underneath is the oldest in this book. Hussain learned knee to knee with his father. Wu Man’s freedom was drilled into her in a Beijing practice room. Jambinai mastered court repertoire before touching a distortion pedal. The new sounds are new, but they are not rootless; they come from somewhere, which is why they go somewhere.



*The hands are new. The ground under the feet
is old.*

That is the state of the living tradition in 2026: electrified, streamed, argued over, and utterly continuous. The hands are new. The ground under the feet is old.

LISTENING NOTES

♪ **Shakti, This Moment**

The 2023 reunion that won the Grammy on 4 February 2024; hear Zakir Hussain's tabla trade phrases with Shankar Mahadevan's voice at conversational speed.

♪ **Anoushka Shankar, Chapter II: How Dark It Is Before Dawn**

The middle panel of her trilogy; listen for how the sitar leads a chamber ensemble without ever raising its voice.

♪ **Wu Fei and Abigail Washburn, Wu Fei and Abigail Washburn**

Guzheng and clawhammer banjo interleaving Chinese and Appalachian songs; the seams are the point, and then they vanish.

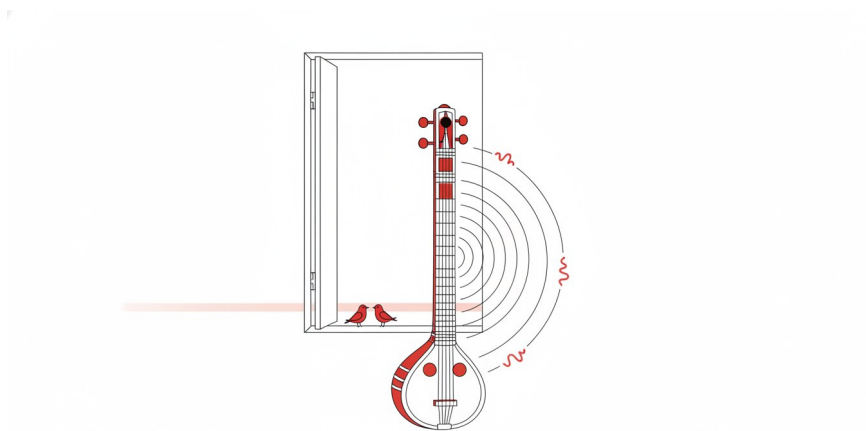
♪ **Jambinai, Onda**

Court-trained haegeum and geomungo inside post-metal dynamics; wait for the geomungo's growl to surface through the distortion.

♪ **The HU, The Gereg**

Khoomei throat singing and horsehead fiddle at rock-band scale; one voice sounding drone and melody at once.





THE LIVING TRADITION — CHAPTER 24

The Enduring Raga: Legacy and Future

The traditions in this book survived conquest, colonialism, and the gramophone. Now they meet the algorithm and the artificial voice. What five thousand years of listening teaches us about what music is for.

NOW, AND THE NEXT THOUSAND YEARS

· EVERYWHERE



aum · the primordial sound

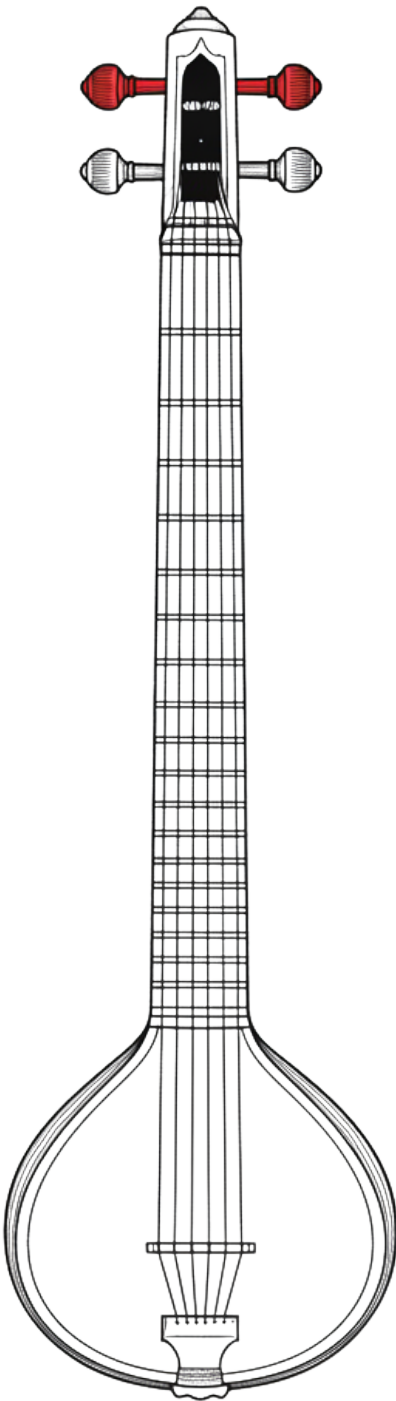
Two things are happening at dawn this morning, and only one of them has a body. In a lane in Varanasi, a dhrupad singer sits cross-legged behind a tanpura, tuning its four strings to the raga Bhairav and beginning, as he has every morning for thirty years, the slow unmetered climb of the alap. Somewhere on a server farm whose location neither of us knows, a generative model receives the words “peaceful morning raga, sitar, lo-fi” and returns, in about eleven seconds, ninety seconds of listenable audio that

a streaming service will file under the same word, raga, and fold into a playlist called something like Indian Chill. Both are music. The question this whole book has been circling, and that its first chapter deliberately left open, is what that word is really naming, and whether the two dawns are the same kind of thing at all.

Twenty-three chapters have not answered the question so much as furnished it. What they show, above everything, is persistence. The raga tradition is at least two thousand years old and probably older. The Confucian ritual music that once stopped Confucius in his tracks has a living descendant performed every spring in Seoul. Gagaku still sounds in the Japanese imperial palace. The dervishes of Konya still turn. These musics have outlasted empires, invasions, colonial contempt, one cultural revolution, the phonograph, the transistor radio, and the streaming platform, and they managed it not behind museum glass but by being chosen, morning after morning, by people who sat down to practice. Place them on a map, as the figure does, with their ages attached, and the pattern is impossible to miss. Something in these traditions keeps meeting a human need that nothing else quite meets. This final chapter asks what that something is, because the future of the music depends on the answer, and because the newest machines are about to test it as nothing before them has.

time. The Japanese honkyoku of the wandering Zen monks was played as *suizen*, blowing meditation, whose point was not a beautiful sound for a listener but the dissolving of the boundary between the player and the breath. The Arab *maqam* tradition even has a word for the destination, *tarab*, the state of shared ecstasy that a great performance builds in a room, which the performer and the audience raise between them and which neither can reach alone. These are not quaint associations retrofitted onto entertainment. They describe what serious practitioners say they are actually doing, and they are why the traditions resist reduction to pleasant sound.

In Indian practice that same conviction has an instrument to stand for it. Before a student of *khayal* or *dhrupad* is allowed to sing a single phrase, they learn to sit behind the *tanpura*, which plays no melody at all, only the drone, four strings sounding the tonic and its fifth over and over until every note of the *raga* becomes a measurement taken against something that does not move. The drone is the harmonic context Indian music needs in place of chords, and it is also, quietly, a theology: a fixed ground of sound, present before the music and after it, against which the human voice finds its place.



The tanpura: four strings and no melody, sounding only the drone against
 which every note of a raga is measured, the instrument a student sits
 behind for years before anyone lets them sing.

One of these sacred descents deserves a correction the whole book has been building toward. It is often said that Confucius wept at the ancient court music. He did not. What the *Analects* record, in their seventh book, is stranger and more precise: hearing the ancient Shao music in the state of Qi, he was so wholly absorbed that for three months he did not notice the taste of meat. He did not cry. He forgot to eat. The music that undid him was *yayue*, the elegant music of the Zhou ritual whose ideal Chapter 2 traced and whose migrations Chapter 15 followed. In its Chinese homeland *yayue* was reconstructed so many times that it is now essentially an antiquarian revival; in Japan it became the *gagaku* still played at court; but its purest living descendant sits in Korea, in the *Munmyo jeryeak*, the rite for Confucius performed each spring in Seoul, whose stone chimes and bronze bells and slow ceremonial winds are, as the scholar Robert Provine has argued, the nearest thing left on earth to the sound the Zhou sages were reaching for. Three thousand years, three countries, and one thread of the sacred still audible in one courtyard.

— Music as a Thing a Community Does

The second answer is that this music is something a community does, not a thing one person sells another. A gamelan is a village instrument in the most literal sense: the bronze belongs to the community rather than to any player, and it is sounded together or not at all. Korean *pansori* looks, from the outside, like the loneliest of arts, one singer and one drummer, yet it runs on a tradition of communal listening so active that the audience is counted a participant, throwing its *chuimsae*, its shouts of encouragement, into the pauses the way a congregation answers a preacher. Even the most private-seeming of these forms, the Hindustani vocalist unfolding a late-night raga to a small circle at a *mehfil*, depends on a web of relationship: the guru who gave the composition, the *gharana* whose taste shapes every ornament, the *rasikas* who know enough to catch their breath at exactly the right moment. In these traditions music is not primarily a commodity produced by one person and consumed by another. It is a way of being together in time that makes something none of the participants could make alone.

This is also the layer that the recording, and then the stream, quietly strips away. A raga captured on a disc keeps the notes and loses the room: the drummer's answering grin, the murmur of wah when a phrase lands home, the collective holding of breath before a difficult return to the tonic. Chapter 22 followed the music onto platforms that can carry a Chennai concert to Lagos before it reaches the next street, an astonishing gain in reach bought at the exact cost of this relational density. The community answer is why a great live mehfil and a technically identical recording of it are not, to the people inside these traditions, the same event at all. One is a relationship. The other is a document of one.

— Resonance: the Science Catches Up

The two answers, the sacred and the communal, meet in the body, in the experience musicians across this book describe as a kind of resonance: the moment the music stops feeling like an event outside you and becomes something happening inside you and between you and everyone in the room at the same time. This is not only a metaphor. It names a measurable event, and for several decades researchers have been measuring it.

The word for the mechanism is **entrainment**, the tendency of independent rhythmic systems to fall into a shared pulse, and human beings do it involuntarily: breathing, heartbeat, and movement synchronize among people making or moving to music together. Researchers including Bronwyn Tarr, Jacques Launay, and Robin Dunbar have argued that this synchrony is one of the reasons music exists at all, that moving in time together triggers the release of endorphins and lifts the threshold of social bonding, briefly knitting strangers into something close to a single organism. The science is arriving, in its own vocabulary, at what the practitioners have said in theirs for millennia. The raga is a technology, among other things: a technology for producing specific states of mind and body, for turning a room of strangers into a temporary community, for marking an hour as sacred or as shared. That these technologies work is not seriously in question. The only real question is whether we will keep the intelligence to use them.

You can watch entrainment happen. In a qawwali the party's handclaps lock the room to a single accelerating pulse until strangers are breathing in time; in a samulnori performance the four drums drive a whole crowd's bodies into the same sway; in the long build of a Hindustani jhala the tabla

and the audience's nodding heads converge on one beat. None of this is decoration laid over the music. It is the music performing the specific work these traditions were engineered, over centuries of patient trial, to do.

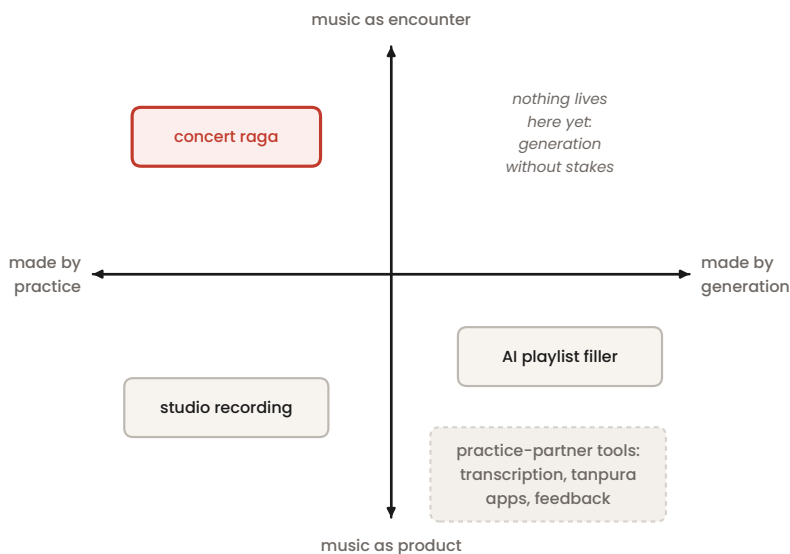
— The Artificial Voice

Which brings us to the machine now sitting at the edge of every one of these traditions. Artificial intelligence composes music, and some of it is, by ordinary aesthetic measures, good. **Generative AI** services like Suno and Udio, both public since around 2023 and 2024, will turn a line of text into a finished song in a genre of your choosing, and models trained on Carnatic or maqam corpora can produce passable improvisations that follow the modal logic with real accuracy. The industry's reaction has run a familiar arc at unusual speed. In 2024 the major record labels sued Suno and Udio for training on copyrighted recordings without permission; by 2025 several of those same labels had turned from litigation toward licensing, negotiating to be paid for the very catalogs they had insisted could not be used. The Recording Academy, meanwhile, rewrote its Grammy rules to state that only a human creator is eligible for an award, and that any AI contribution to a nominated work must sit beside a meaningful human hand. Law and institution alike are scrambling to answer a question they were never built for.

Whether AI music is “real” generates more heat than light, because the answer depends entirely on what you think music is for. If music is a product, a sequence of organized sound that produces pleasure or meaning in whoever hears it, then a generated track qualifies as fully as any other. If music is a practice, something that happens in the relationship between a person and a tradition, a teacher, a community, a history, then the machine is doing something else entirely. A raga performed by an AI has no stakes. The singer who has spent thirty years learning to sound Bhairav at dawn knows something about Bhairav that no training corpus contains, because what they know is inseparable from the thirty years, the teacher, the failures, the cold early mornings, the rare unearned grace. The model has processed the outputs of that knowledge. It has not had the experience that produces it. The figure sets the two columns side by side, what the machine can do for a raga and what it structurally cannot.

A raga performed by an AI has no stakes.

WHERE AN AI RAGA WOULD SIT



Product against practice: a grid of what generative AI can do for a raga, transcribe it, catalog it, imitate a style, spin out a playlist, set against what it cannot, sit at a teacher's feet, spend twenty years, and carry the stakes that make the sound mean anything.

There is a narrower, more technical version of the same doubt, and Indian musicians have been raising it since the first generated ragas appeared. A raga is not a scale but a grammar of movement: which notes may be approached from below and which must be slid into from above, where a phrase may rest and where it may never stop, how a gamaka is shaped and a shruti bent a hair flat of its tempered place. Early models tended to

produce something with the right notes and the wrong grammar, a Western approximation wearing Indian clothes. The most interesting response has not been to ban the machines but to feed them better: young ventures that pay working musicians across dozens of gharanas to record ethically licensed datasets, so that a model, if it is going to learn the grammar at all, learns it from consenting masters who are credited and paid. Whether that dignifies the practice or merely digests it more politely is precisely the kind of question this chapter cannot pretend to close.

The danger was never that AI would help preserve these musics; that part is genuinely useful, and we will come to it. The danger is the frictionless consumption of their outputs by people who never once brush against the practice that produced them. In the summer of 2025 a band called the Velvet Sundown gathered hundreds of thousands of listeners on the streaming platforms before anyone noticed that its members, its photographs, and its songs were entirely machine-generated, a synthetic act passing unremarked among the real ones. That is the dark twin of the fear this chapter opened with, the raga-flavored playlist assembled in eleven seconds. The problem is not that the fake is evil. The problem is that it is frictionless, and that a listener may never feel the smallest pull toward the difficult, humbling, decades-long thing the living music actually asks of anyone who wants it.

CONCEPT

The Voice Returned

In 2024 the composer A.R. Rahman did something that would have been science fiction a decade earlier. For a song in the Tamil film *Lal Salaam*, he used artificial intelligence to recreate the voices of two singers who had died, Bamba Bakya and Shahul Hameed, and brought them back to sing new lines. He did it with the families' consent and with payment, and he said so openly, which turned the recording into India's first widely debated test case for a question the technology forces on everyone: who owns a voice once its owner is gone?

The courts had already begun to answer. In 2023 the Delhi High Court protected the actor Anil Kapoor's name, image, and voice against AI imitation; in 2024 it did the same for Jackie Shroff. These personality-rights rulings, arriving in the same months as Rahman's experiment, drew the first legal lines around the synthetic voice. Consent and credit, they suggest, are

the whole difference between a tribute and a theft. The technology will not draw that line by itself.

— What the Machine Cannot Practice

The useful half of the machine is real, and worth naming precisely. AI tools already transcribe the recordings of elderly musicians whose music was never notated, catalog archives no human lifetime could index, and let a student compare their own playing to a master's and hear exactly where it falls short. And the archives themselves have become concrete infrastructure rather than a vague hope. The British Library's Endangered Archives Programme has digitized fragile sound collections from dozens of countries; All India Radio's vast tape library is being digitized against its own slow decay; and Saregama, the direct corporate descendant of the Gramophone Company that recorded Gauhar Jaan in 1902, now streams a full century of that catalog on the same video platforms that carried the Velvet Sundown. The outputs of these traditions have never been so preserved, or so reachable, in all of history.

But preservation of the output is not preservation of the practice, a distinction Chapter 21 drew and this chapter cannot let go. You can digitize every raga ever recorded and still fail to transmit the thing that matters, because, as that chapter put it, you cannot apprentice yourself to a recording. The point returns with each new technology that promises to close the gap. The immersive-audio experiments of the last few years are the current candidate: spatial formats like Dolby Atmos, and headsets that place a rendered dhrupad ensemble or a Balinese temple courtyard around your head. They genuinely convey something a flat recording cannot, the envelope of the sound, its placement in a room. The reality check is that the envelope is the surface. The person in the actual courtyard in Varanasi is inside a conversation with centuries of practice, with a living community of musicians and listeners, with an unfinished argument about where the tradition should go. **Spatial audio** can reproduce where a sound comes from. It cannot reproduce what the sound costs to make, or what it means. The most honest thing such a rendering can do is exactly what a great recording already does: make someone in Sao Paulo or Stockholm want the real thing badly enough to go and find it.

— Who Gets to Sing

There is a harder question than any machine poses, and the traditions are working through it in real time. For most of their history the high classical musics of Asia were walled off by caste, gender, and class from the majority of the people in their own societies. This book has kept the fact in view since its first chapter, where full Vedic transmission was reserved for twice-born boys, and the wrong ears could be punished for so much as listening. It asked, there, who gets to sing, and promised to keep asking all the way to the end. This is the end. The devadasis of South India produced some of the greatest music of their age inside a system that was also hereditary servitude. The tawaifs carried khayal and thumri through the whole nineteenth century and were then written out of the respectable history by the very reformers who canonized their repertoire. And the first woman to sing pansori, Jin Chae-seon, had to be admitted to a men's art one astonished audience at a time, until the door she pried open now admits a majority of the singers in the form. The direction across the long century is toward that door, not away from it.

The argument is loudest, now, where it is most alive. In Carnatic music the vocalist T.M. Krishna has spent more than a decade insisting that a music soaked in devotion cannot excuse itself from justice. He moved concerts out of the Brahmin sabhas and into a fishing village for the Urur Olcott Kuppam festival, wrote a book taking apart the caste economy of his own art, received the Magsaysay Award in 2016, and in 2024, when the Madras Music Academy named him its Sangita Kalanidhi, set off a boycott that split the Carnatic establishment down the middle. Trans and Dalit performers are entering classical stages that were built, quite deliberately, to keep them out. Dalit musicians whose families were once confined to the hereditary drumming castes, playing the parai or the tavil at the temple gate while forbidden to step inside it, now train and perform as vocalists on the sabha stage. Transgender artists, long tolerated only in the marginal devotional forms, are beginning to claim the concert platform and the classical repertoire outright. Each such entrance reopens the oldest question in this book, the one the fire-lit clearing first raised about who may carry the sacred sound, and answers it, slowly and against real resistance, in a wider voice. None of this is comfortable, and the traditions gain nothing by pretending the discomfort is new. It is only, at long last, being spoken aloud.

Even the machinery of recognition carries the argument forward. The UNESCO lists of **intangible cultural heritage**, on which so many of this book's traditions now appear, are nominated by nation-states, and the politics show plainly in the pattern. Vedic chanting is inscribed while Hindustani and Carnatic music are not; neighboring countries file competing claims to forms they share; a listing confers prestige and tourist revenue, and so becomes a thing to fight over. Intangible cultural heritage is a genuine safeguard and also a national trophy, and which musics receive the trophy is decided by exactly the kind of power that the question of who gets to sing has always been about.

— A Form of Attention

So what, after twenty-four chapters, is music? I have been working toward an answer for the length of a book, and I want to be honest about its edges. Music is organized sound, but so is speech, and music is not speech, though they are ancient neighbors. Music is expression, but the word is too thin for it. The experience of musicians in every tradition here suggests that the sound does not merely express a feeling that preceded it; it produces a feeling that did not exist until the sound did, a specific feeling with no name outside the raga that makes it. The raga does not describe a mood. It is the mood, made audible and shareable.

Music is also, I think, a form of attention. To play it seriously, in any tradition in this book, demands a quality of attention that ordinary life almost never asks for: complete, sustained, open to surprise, and grounded in years of preparation. To listen seriously asks a smaller version of the same. That quality of attention may be among the things human beings most need and least practice, and these traditions have been building technologies to produce it, in players and in listeners alike, for thousands of years. They are not relics. They are living research programs into attention, into emotion, and into the strange fact that vibrating air can carry the substance of experience, and they are still running.

Which is why I end where the book began, and where its confidence really lies. Not in any institution or device, but in the effect of first encounter: the way a listener who has never heard a raga, or a maqam, or a pansori singer tearing through six hours of grief can be found by it anyway, reached through the unfamiliarity by something older than culture. The raga can find you even if you have never heard one before.

*The raga can find you even if you have never
heard one before.*

Go back, one last time, to the clearing of the first chapter: the bird-shaped altar of a thousand baked bricks, the smoke rising in the Kerala dark, the tape reels turning, and a single voice descending its ancient terraces because a hundred generations decided the sound must not stop. That voice did not survive three thousand years because it was protected. It survived because, every single year, someone chose to sing it, and someone else chose to listen with their whole attention, and something passed between them that neither could have made alone. The machines can copy the sound of it now. They cannot yet choose it, and they have nothing at stake if they do. Whether we will keep choosing it, whether five thousand years of listening will teach us to hear the difference between what the machine can fake and what only a life can make, is not a question this book can close. This is not a museum tour. Every tradition in it is alive, and this book has tried to teach you to hear that. The question, like the music, remains open.

LISTENING NOTES

♪ **Nambudiri Vedic reciters, Samaveda chant (from Frits Staal's field recordings)**

The book's root sound: the terraced descent of Samagana, the oldest music still passed unbroken from living teacher to living student.

♪ **Music Department of the Imperial Household (Kunaicho Gakubu), Eten-raku**

The most famous gagaku piece; hear the sho's cluster chords hold a halo of sound while the hichiriki bends the melody, at the unhurried tempo the Japanese court has kept for a thousand years.

♪ **Nusrat Fateh Ali Khan, Allah Hoo Allah Hoo**

Qawwali at full flood; the party's handclaps and the leader's soaring line drive a whole room toward the ecstatic state the Sufis reach for, the tradition Chapter 20 carried into the West.

🎵 **Java: Court Gamelan (Nonesuch Explorer)**

A Central Javanese court gamelan; listen for the colotomic gongs marking the cycle while the elaborating instruments shimmer above the skeletal balungan, music a community owns together.

🎵 **The Gundecha Brothers, Raga Bhairav (dhrupad)**

The dawn raga at the heart of this chapter, sung in the genre nearest the Vedic root; the alap unfolds from wordless syllables exactly as a saman does, and the stakes are audible in every note.



A CONCISE HISTORY OF EASTERN MUSIC

Glossary

A working vocabulary of the traditions in this book. Terms are defined as they are used here; many carry further shades of meaning in their home languages.

aak Korea's Confucian ritual court music, derived from Chinese *yayue*; today it survives chiefly in the Munmyo rite.

abjad A medieval Arabic and Persian notation using the letters of the alphabet to name pitches.

alap The slow, unmetered opening of a Hindustani performance, in which the raga is revealed note by note before any pulse begins.

aroha / avaroha The ascending and descending note patterns of a raga, which often differ from each other.

ayin The complete, multi-movement musical composition of a Mevlevi sema ceremony, in a single named makam.

balungan The core melodic skeleton of a Javanese gamelan piece, carried by the metallophones and elaborated by the other instruments.

bandish A fixed composition in Hindustani vocal music, the composed anchor around which improvisation unfolds.

barbat The medieval Persian short-necked lute, ancestor of the Arab oud and, through it, the European lute.

bayin The ancient Chinese classification of instruments by the eight materials that sound them: metal, stone, silk, bamboo, gourd, clay, skin, and wood.

bianzhong A set of tuned bronze bells hung on a frame; the most famous, from the tomb of Marquis Yi of Zeng, sounds two pitches per bell.

colotomy The gong-marked cyclic structure of gamelan music, in which nested instruments punctuate a repeating time cycle.

dangak The category of Korean court music derived from Chinese secular (Tang and Song) music, distinct from native *hyangak*.

dastgah A Persian modal system, a family of melodic material and its characteristic pathways; there are seven principal dastgah and five secondary avaz.

devadasi A woman dedicated to a South Indian temple, historically a custodian of music and dance; the institution was abolished in the twentieth century.

dhrupad The oldest surviving genre of North Indian classical vocal music, austere and grand, sung to the pakhawaj drum.

gagaku The ancient court orchestral music of Japan, among the oldest continuously performed orchestral traditions in the world.

gamaka The ornaments, slides, and oscillations that give Indian melody its continuous, vocal quality.

gamelan A tuned percussion orchestra of Java and Bali, treated as a single instrument with its own tuning and identity.

gharana A hereditary or discipleship lineage in Hindustani music, each with its own recognizable aesthetic and technique.

ghana patha A Vedic recitation pattern that weaves words forward and backward in an interlocking grid to guard against error.

ghazal A lyric poem of rhymed couplets sharing a refrain, and the sung forms built on it across the Persianate and South Asian worlds.

gongche A Chinese solfège-style notation using written characters to name scale degrees.

gusheh A short melodic model within a Persian dastgah; a performer strings gusheh together into an improvised journey.

guru-shishya parampara The lineage of teacher (guru) and disciple (shishya) through which Indian music is transmitted, often over decades of shared life.

harmonium A small reed organ, brought by missionaries, that became central to Hindustani devotional and light music despite its fixed tuning.

honkyoku The solo shakuhachi repertoire of the Zen komuso monks, played as a form of meditation rather than performance.

hyangak The category of native Korean court and aristocratic music, as opposed to the imported aak and dangak.

- iemoto** The Japanese head-of-school system, in which a hereditary master governs the transmission and licensing of an art.
- iqa'at** The rhythmic cycles of medieval Arab and Persian music theory.
- irama** The levels of tempo and melodic density in gamelan, which expand and contract the same underlying cycle.
- jeongganbo** The grid notation devised at King Sejong's Korean court around 1447, the first notation in East Asia to record duration as precisely as pitch.
- jianzipu** The Chinese guqin tablature in which each composite character bundles string, finger, technique, and position into one playing instruction.
- jingju** Beijing (Peking) opera, synthesized from regional styles after 1790, with its sung types and painted-face roles.
- jins (plural ajnas)** The tetrachord and pentachord building blocks from which an Arab maqam is assembled.
- kharja** The closing lines of a muwashshah poem, often in colloquial Romance or Hebrew, that release the poem's tension.
- khayal** The dominant genre of Hindustani vocal music since the eighteenth century, freer and more ornamented than dhrupad.
- komagaku** Music of the Right in Japanese gagaku, the repertoire of Korean and northern origin, paired against togaku.
- kriti** The principal composed form of Carnatic music, in three sections (pallavi, anupallavi, charanam), most associated with the composer Tyagaraja.
- kroncong** A creole popular music of Indonesia rooted in Portuguese and Eurasian port culture.
- makam** The Ottoman Turkish modal system, cousin to the Arab maqam and Persian dastgah.
- maqam (plural maqamat)** The modal system of Arab music: not a scale but a place, with a home pitch, characteristic phrases, and an expressive world.
- mehter** The Ottoman military band, whose sound entered European ears as the "Turkish style" and was abolished in 1826.

melakarta The Carnatic system, codified in 1620, of seventy-two parent scales from which ragas are derived.

mesk The Ottoman method of oral, face-to-face musical transmission that coexisted with written notation.

mizan A rhythmic mode of the Andalusí nawba; the Moroccan al-Ala suite passes through five of them in accelerating order.

muwashshah A strophic Andalusí poetic and song form, often bilingual, that flowered in al-Andalus.

nada brahma The Indian philosophical idea that sound is a manifestation of the divine, the root of music's sacred status.

nagauta The lyrical shamisen-and-voice music of the Japanese kabuki theater and concert stage.

navaratna The "nine jewels," the legendary brightest men of Akbar's court, among them the singer Tansen.

nawba (also nuba) The Andalusí suite of movements in a single mode, surviving today in the classical traditions of the Maghreb.

ney The end-blown reed flute of the Persian, Arab, and Ottoman worlds, emblem of the soul's longing in Sufi thought.

oud The fretless short-necked Arab lute, the theory-teaching instrument of the maqam world; its name means "the wood."

pakad The characteristic phrase or gesture that identifies a raga, its melodic fingerprint.

pansori The Korean epic storytelling art of one singer and one drummer, sustained for hours.

pathet The modal classification of Javanese gamelan music, tied to the phases of an all-night shadow play.

qawwali The ecstatic devotional song of South Asian Sufism, traced to Amir Khusrau and carried worldwide by Nusrat Fateh Ali Khan.

qinpu A handbook of guqin music in tablature; the earliest surviving printed example dates to 1425.

qiyān The trained professional singing women of the early Islamic and Andalusí courts.

radif The ordered repertoire of Persian classical music, hundreds of gusheh that a musician absorbs and then draws on freely.

- raga** The melodic framework of Indian music: a set of notes with rules, gestures, moods, and often a time of day, closer to a personality than a scale.
- rasa** The aesthetic essence or flavor a performance aims to evoke in the listener, from the *Natyashastra*'s theory of the emotions.
- runqiang** The melismatic ornamental style of Chinese kunqu opera singing.
- sama** Sufi listening, the spiritual audition of music and poetry; in the Mevlevi order, the whirling ceremony.
- samay** The doctrine that each Hindustani raga belongs to a particular time of day or season.
- sanfen sunyi** The ancient Chinese "subtract and add a third" method that generates the twelve pitch standards by alternating ratios of two-thirds and four-thirds.
- sanjo** A Korean solo instrumental form that accelerates through a suite of rhythmic cycles from very slow to whirlwind.
- sankyoku** The Japanese chamber ensemble of koto, shamisen, and shakuhachi (or kokyū).
- sargam** The Indian solfège syllables (Sa, Re, Ga, Ma, Pa, Dha, Ni) and, by extension, notation using them.
- sawari** The deliberate buzzing resonance built into the neck of the shamisen and biwa, a prized "impurity" of tone.
- sayr** The prescribed melodic pathway of a maqam, the reason two modes with the same notes can feel entirely different.
- shakuhachi** The Japanese end-blown bamboo flute, associated with Zen practice.
- shruti** The microtonal intervals of Indian music, traditionally counted as twenty-two within the octave.
- sitar** The long-necked North Indian plucked lute with sympathetic strings, developed in eighteenth-century Delhi.
- tahrir** The Persian vocal technique of a rapid break between registers, likened to a yodel, that resists notation.
- tala** The cyclic rhythmic framework of Indian music, a fixed number of beats grouped into a repeating pattern.

thaat Bhatkhande's twentieth-century classification of Hindustani ragas into ten parent scales.

togaku Music of the Left in Japanese gagaku, the repertoire of Chinese (and Indian and Southeast Asian) origin.

usul The rhythmic cycle of Ottoman music, which a composition holds for its entire length.

yang-yig The graphic Tibetan notation that draws the rising and falling contour of Buddhist chant.

yayue The elegant ritual court music of ancient China, held to embody cosmic and moral order.

yue The classical Chinese word binding music, joy, and harmony into a single idea.

A CONCISE HISTORY OF EASTERN MUSIC

A Listener's Guide

This book argues that these traditions must be heard, not just read about. What follows is a starting canon: recordings, widely available on physical media and streaming platforms as of 2026, chosen because each one opens a door. Every chapter also closes with its own Listening Notes; this guide gathers a broader selection, tradition by tradition. Where a performer has many recordings, almost any will serve; the point is to begin.

India, Hindustani

- Zia Mohiuddin Dagar, *Raga Yaman* (rudra veena): the slow, seismic authority of dhrupad on its deepest instrument.
- Nikhil Banerjee, *Raga Megh* or any Maihar recording: sitar of crystalline architecture.
- Bhimsen Joshi, *Raga Miyan ki Todi*: the Kirana voice at full power.
- Kishori Amonkar, *Bhoop* or *Raga Bhinna Shadja*: the Jaipur-Atrauli line, fierce and interior.
- Nusrat Fateh Ali Khan, *Shahen-Shah* or the Real World recordings: qawwali's ecstatic engine.

India, Carnatic

- M.S. Subbulakshmi, *Live at Carnegie Hall* or her Tyagaraja recordings: the reference voice of the tradition.
- Semmangudi Srinivasa Iyer, the Tyagaraja kritis: the scholar's Carnatic.
- T.M. Krishna, any recent concert recording: the tradition's most argued-over living voice.

The Arab and Persian worlds

- Umm Kulthum, *Enta Omri*: the maqam made monumental, and an hour that never feels long.
- Munir Bashir, *Mesopotamia* or any solo oud taqasim: improvisation as private meditation.

- Mohammad Reza Shajarian with Hossein Alizadeh and Kayhan Kalhor, *Without You or Night Silence Desert*: the Persian radif alive in the present.
- Tanburi Cemil Bey, the early-twentieth-century recordings: the Ottoman tradition captured at the moment of the phonograph.
- Kudsi Erguner, *Mevlana: Music of the Whirling Dervishes*: the ney and the ayin.

China, Japan, Korea

- Guan Pinghu, *Liu Shui* (Flowing Water): the guqin classic, and the recording NASA sent into deep space on the Voyager Golden Record.
- Music of the Bianzhong of Marquis Yi (Hubei ensemble reconstructions): the sound of bells buried for two thousand years.
- Imperial Court Music of Japan, *Gagaku*, or the Tokyo Gakuso recordings of *Etenraku*: the oldest orchestral music still played.
- Goro Yamaguchi, *A Bell Ringing in the Empty Sky*: the shakuhachi, also aboard the Voyager record.
- Jongmyo Jeryeak, National Gugak Center recordings: the Confucian ancestral rite of Korea, fixed in 1464.
- Kim So-hui or any master, *Chunhyangga*: pansori, one voice and one drum for hours.

Southeast Asia

- Java: *Court Gamelan* (Nonesuch Explorer Series): the classic Western introduction to Central Javanese gamelan.
- Bali: *Gamelan and Kecak* or Gong Kebyar recordings: the bright, interlocking fire of the Balinese style.

The living present

- Shakti, *This Moment* (2023): fifty years of East-West conversation, Grammy-winning.
- Anoushka Shankar, the *Chapter* trilogy (2023 to 2025): the raga meeting electronics on its own terms.
- Arooj Aftab, *Vulture Prince*: neo-Sufi minimalism from Brooklyn.
- Coke Studio Pakistan, *Pasoori* (2022): the broadcast that crossed a closed border a billion times.
- Jambinai, *A Hermitage*: Korean gugak instruments inside post-rock.

A CONCISE HISTORY OF EASTERN MUSIC

Further Reading

A concise history stands on many long ones. These are the works, in English, that a reader who wants to go deeper should find first. They are grouped to follow the book, and most contain bibliographies that open onto the wider scholarship.

General and comparative

- Bruno Nettl, *The Study of Ethnomusicology*. The discipline's standard orientation.
- Michael Church, ed., *The Other Classical Musics*. Tradition-by-tradition surveys by specialists; the closest companion to this book.
- Jean During and contributors, the relevant *Garland Encyclopedia of World Music* volumes (South Asia, East Asia, the Middle East, Southeast Asia).

India

- Lewis Rowell, *Music and Musical Thought in Early India*. The Vedic and classical foundations.
- Bonnie C. Wade, *Music in India: The Classical Traditions*.
- Janaki Bakhle, *Two Men and Music*. Bhatkhande, Paluskar, and the making of a national music.
- Daniel Neuman, *The Life of Music in North India*. The gharana and its social world.
- Katherine Butler Schofield and others on Mughal and courtly music; Schofield's essays reset the Aurangzeb story.

The Islamic world

- Owen Wright, *The Modal System of Arab and Persian Music*. The medieval theory, rigorously.
- Amnon Shiloah, *Music in the World of Islam*.
- Hormoz Farhat, *The Dastgah Concept in Persian Music*. The authoritative account of the radif.

- Dwight F. Reynolds, *The Musical Heritage of al-Andalus*. Ziryab between legend and evidence.
- Walter Feldman, *Music of the Ottoman Court*.
- A.J. Racy, *Making Music in the Arab World*. The aesthetics of tarab.

China, Japan, Korea

- Lothar von Falkenhausen, *Suspended Music*. The bells of Marquis Yi and Zhou musical culture.
- Kenneth DeWoskin, *A Song for One or Two*. Music and early Chinese thought.
- William P. Malm, *Traditional Japanese Music and Musical Instruments*.
- Laurence Picken and the Cambridge school, *Music from the Tang Court*. The reconstruction debate behind gagaku.
- Robert C. Provine, *Essays on Sino-Korean Musicology*. Sejong, the aak reform, and jeongganbo.
- Keith Howard, *Korean Musical Instruments* and his writings on pansori and preservation.

Southeast Asia and exchange

- Jaap Kunst, *Music in Java*. The foundational study; the source of the word colotomy.
- Sumarsam, *Gamelan: Cultural Interaction and Musical Development in Central Java*.
- Gerry Farrell, *Indian Music and the West*. Two centuries of encounter.
- Annegret Fauser, *Musical Encounters at the 1889 Paris World's Fair*.
- Edward Said, *Orientalism*. The framework, and its limits, for the chapter on discovery.

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