

# 射

*she — the Bow*

## Traditional Chinese Archery

The art of the bow (*she* 射) as a strand of the *wu* 武  
A deepening volume to Volume I of a series on the martial,  
the civil, and the cultivated person

A source-based scholarly investigation of its ritual, its history,  
its craft, its recorded technique, and its practice today

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A scholarly work for practitioners, teachers, and masters

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*This volume deepens the archery strand (she 射) of the wu, first sketched in Volume I.*  
Archery is the one of the Six Arts that the ritual classics chose as their model  
of moral self-examination; in it, the martial (*wu*) and the civil (*wen*) are most nearly one.  
The guiding ideal of the whole series remains *wen wu shuang quan* 文武雙全,  
completeness in both the civil and the martial.

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## Summary

The present work traces Chinese archery (*she* 射) in its entirety, as ritual, as examined military skill, as material craft, as a recorded technical method, and as a living practice with a modern evidence base. It is a deepening volume within a larger series on the education of the person in the Chinese tradition. That series is organized around the classical pair *wen* 文, the civil and cultural, and *wu* 武, the martial, whose union, *wen wu shuang quan* 文武雙全, was the true measure of the complete person. Volume I reconstructed the *wu* as a whole and treated archery there as one of four interlocking strands; the present volume takes up that strand alone and follows it to a depth the general volume could not afford, while deliberately building on, rather than repeating, what Volume I established in its chapters on the Six Arts, on ritual archery, on the military examination, and on the evidence for attention.<sup>1</sup>

Archery holds a singular place in this scheme. Of the six practical skills of Zhou education, archery and charioteering were the two unambiguously martial; but only archery was elevated by the ritual classics into an explicit model of moral formation. The *Book of Rites* devoted to it a chapter, “The Meaning of Archery” (*Sheyi* 射義), in which the archer who misses the mark seeks the cause of the miss not in the target or the bow but within himself; the *Analects* of Confucius names archery the one form of rivalry befitting the gentleman, precisely because it is bounded by deference. Here the martial and the civil are not merely adjacent but fused: a weapon is mastered, a real contest is held, and yet the whole practice is arranged so that what is finally trained is character. For this reason archery is the strand of the *wu* that lies closest to the *wen*, and the natural subject of a volume that seeks the seam between the two.

The work pursues six aims. First, it recovers the ritual and philosophical meaning of archery in the classical sources and shows why the tradition made the bow a school of the self. Second, it reconstructs the twelve-century institutional history of archery as an examined qualification, from the military examination of Wu Zetian in 702 to its abolition in 1901, and traces the long afterlife of that history in the modern revival of traditional archery. Third, it presents the material culture of the Chinese bow: the composite construction of horn, sinew, wood, and bamboo, the characteristic thumb draw and its ring, and the arrow. Fourth, it sets out the recorded technique of the tradition as preserved above all in the 1637 manual of Gao Ying 高穎, the most systematic Chinese treatment of shooting method that survives, and reads it alongside the earlier ritual grading of the “five archery skills.” Fifth, it turns to the present and weighs, in descending strength of evidence, what modern research on attention, gaze, cortical activity, and breath can and cannot show about the practice of the bow. Sixth, it closes practically, with design principles for taking up archery as formation rather than sport, held within the ethics of *wude* 武德.

One clarification governs the whole. The lasting value of archery does not lie in the recovery of an obsolete weapon of war, which no argument could motivate, but in a pedagogy: a method of forming attention, posture, breath, and judgment together, under the unforgiving external test of the target, and within an ethical frame. That pedagogy is transferable where the weapon is not. The tradition needs no exaggeration to be worth preserving; it gains when one looks at it closely. And archery, let it be said in advance, forms only the one half of the complete person; its ethical and ritual depth points beyond itself, to the *wen* whose own volume completes the pair.

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<sup>1</sup> Volume I: Opfermann, Eike Andreas, *Traditional Chinese Martial Arts Education. The Wu* (Version 4, English), 2026, esp. chaps. 2.2, 3.4, 5.1, 6.3, 7.3, and 9.2. The present volume presupposes that account and refers to it rather than restating it.

## A Note on the Sources

This volume follows the source-critical method of the series without alteration, and the reader is asked to keep its threefold distinction in view throughout. Every statement in what follows belongs to one of three kinds, and the text marks which. The first kind is *founding legend*: a narrative written down long after the events it describes, prone to idealization, and reported here as legend, never as fact. The second is the *datable institution, text, or find*: an examination, a ritual code, a manual, an archaeological object, each given with a concrete source in the footnote. The third is the *modern empirical finding*: peer-reviewed experimental or clinical research, weighted by strength of evidence and named with its limits. This stance is not imported from outside but has its own Chinese ancestry, in the critical historiography founded by Tang Hao 唐豪 (1897–1959), who first tested the founding legends of the martial arts against the sources and largely rejected them.<sup>2</sup> The same demand of honesty governs the modern sections: every empirical claim has been verified against its primary publication, with exact authors, title, journal, year, and locus, and no figure is reported that could not be so verified.

For a subject as prone to romantic distortion as archery, this discipline matters doubly. The popular image of “meditative” Eastern archery derives in large part from a single, much-translated European book on Japanese *kyudo*, whose historical reliability has been seriously questioned by later scholarship;<sup>3</sup> the present work draws no evidence from it and treats it only as an object lesson in how such distortion arises. The Chinese ritual meaning of archery, by contrast, rests on datable classical texts, and its modern effects rest on measurable studies; the two must never be confused with each other or with the wellness mythology that surrounds the field.

The account draws on four groups of sources. First, on the classical primary sources: the ritual classics *Zhouli* 周禮, *Yili* 儀禮, and *Liji* 禮記, with the archery ceremonies of the *Xiangsheli* 鄉射禮 and *Dashe* 大射 and the interpretive chapter *Sheyi* 射義, together with the *Analects* (*Lunyu* 論語).<sup>4</sup> Second, on the scholarly historiography of Chinese archery, above all on Stephen Selby’s source-based comprehensive account and on the more recent collected volume of Chao, Ma, and Kim, supplemented for institutional detail by the reference apparatus of ChinaKnowledge.de.<sup>5</sup> Third, on the recorded technical tradition, above all on the 1637 manual of Gao Ying in the annotated translation of Jie Tian and Justin Ma, the fullest technical source available in English.<sup>6</sup> Fourth, for the modern sections, on peer-reviewed research in the sport and cognitive sciences, in particular on studies of the archer’s gaze, cortical activity, attention, and breath, held to the same standard of verification as the historiography.

<sup>2</sup> On Tang Hao as founder of critical martial arts historiography cf. Kennedy, Brian / Guo, Elizabeth, *Chinese Martial Arts Training Manuals. A Historical Survey*, Berkeley 2005, chapter on Tang Hao; Henning, Stanley E., *Ignorance, Legend and Taijiquan*, in: *Journal of the Chen Style Taijiquan Research Association of Hawaii* 2/3 (1994), pp. 1–7.

<sup>3</sup> Yamada, Shōji, *The Myth of Zen in the Art of Archery*, in: *Japanese Journal of Religious Studies* 28/1–2 (2001), pp. 1–30. Yamada shows that the spiritual episodes in Eugen Herrigel’s *Zen in the Art of Archery* (1948) rest in part on mistranslation and on Herrigel’s own prior expectations, and that the book’s identification of archery with Zen is historically unfounded. It concerns Japanese *kyudo*, not Chinese archery, and is cited here only as a cautionary case, discussed in Chapter 10.2.

<sup>4</sup> Cited from the standard editions; for the ritual archery texts the parallel-text translations in Selby (below) are used throughout.

<sup>5</sup> Selby, Stephen, *Chinese Archery*, Hong Kong 2000; Chao, Hsiao-tung / Ma, Lianzhen / Kim, Loong Wong (eds.), *Chinese Archery Studies. Theoretic and Historic Approaches to a Martial Discipline* (Martial Studies, vol. 1), Singapore 2022; Theobald, Ulrich, *ChinaKnowledge.de – An Encyclopaedia on Chinese History and Literature*.

<sup>6</sup> Tian, Jie / Ma, Justin, *The Way of Archery. A 1637 Chinese Military Training Manual*, Atglen (PA) 2015. Translation of and commentary on Gao Ying 高穎, *Wu Jing She Xue Zheng Zong* 武經射學正宗 (“Orthodox Guide to Martial Archery”), 1637.

## 1. Introduction: Why the Bow Deserves a Volume of Its Own

Among the practices that the Chinese tradition counted as education, none carries so much at once as archery. It is a weapon and a rite; a test of the body and a test of the character; a skill examined by the state for twelve centuries and a metaphor, in the mouth of Confucius, for the conduct of the gentleman. Volume I of this series traced the martial half of the person, the *wu* 武, through four interlocking strands and could give archery only the space that a survey allows.<sup>7</sup> Yet the archery strand rewards, more than any other, a closer look, because in it the two great categories of Chinese education, the martial *wu* and the civil *wen* 文, are not merely placed side by side but genuinely fused. This is the reason for a volume of its own, and it is at the same time the thread that runs through everything that follows.

The claim can be stated precisely. Of the Six Arts (*liuyi* 六藝) of Zhou education, two were unambiguously martial: archery (*she* 射) and charioteering (*yu* 御).<sup>8</sup> But the ritual classics singled out archery alone and made it the bearer of an explicit theory of moral self-examination, which no other martial skill received. The *Book of Rites* (*Liji* 禮記) gave it a chapter of its own, and the *Analects* made it the one contest worthy of the gentleman.<sup>9</sup> A bow can kill; a target can be missed for want of skill; and precisely because the test is real and external, the tradition could build upon it a discipline of the inner life that no purely symbolic exercise could sustain. Archery is thus the point at which the martial tradition looked most directly like the civil one, the seam of the whole scheme, and a volume that means to understand that scheme does well to examine the seam.

This is not a plea to revive the bow as an instrument of war. The military bow was rendered obsolete by firearms centuries ago, and its examination was abolished in 1901 for exactly that reason.<sup>10</sup> What survives the weapon is its pedagogy: the training of precision within a fixed and repeatable form, in which the smallest disturbance of breath, posture, or attention registers at once in the result, and in which the practitioner is therefore compelled to seek the cause of every error within himself. That pedagogy is what a modern person can still take up, whether with a traditional composite bow or, for many, in a form adapted to present circumstance; and it is what the modern evidence on attention, gaze, and breath, presented in Chapter 9, bears upon. The argument of this volume is that this pedagogy is worth preserving on grounds at once cultural, cognitive, and ethical, and that it can be practiced honestly today, provided one neither romanticizes it into mysticism nor flattens it into sport.

The volume proceeds in five movements. It first situates archery within the *wen* / *wu* scheme and the series, and explains what a deepening volume owes to and withholds from the general one (Chapter 2). It then unfolds the ritual and philosophical meaning of archery in the classical sources, the true center of gravity of the subject (Chapter 3). Third, it reconstructs the long institutional history of archery as examined skill and its modern revival (Chapters 4 and 5). Fourth, it turns to the concrete: the material culture of the composite bow and the thumb draw (Chapter 6), and the recorded technique of the tradition as preserved in Gao Ying's manual of 1637 (Chapter 7). Fifth, it places archery back among the strands of the *wu* (Chapter 8), weighs

<sup>7</sup> Volume I, chaps. 2.2 (the Six Arts), 3.4 (ritual archery), 5.1 and 6.3 (the military examination), 7.3 (archery as a strand), and 9.2 (the evidence on attention). The present volume takes each of these as its point of departure and deepens it.

<sup>8</sup> Theobald, Ulrich, *liuyi* 六藝, in: *ChinaKnowledge.de*; cf. Volume I, chap. 2.2.

<sup>9</sup> *Liji* 禮記, chap. *Sheyi* 射義; *Lunyu* 論語 3.7; both treated in Chapter 3 below. Cf. Selby, *Chinese Archery*, on the ritual archery texts.

<sup>10</sup> Theobald, Ulrich, *The Chinese Imperial Examination System*, in: *ChinaKnowledge.de*: the military examination, with its emphasis on archery and physical strength, grew anachronistic in the age of firearms and was abolished in 1901. Cf. Volume I, chap. 6.3.

the modern evidence in descending order of strength (Chapter 9), names the honest limits, including the cautionary case of the “Zen archery” myth (Chapter 10), and closes with design principles for a modern practice held within the ethics of *wude* (Chapters 11 and 12). Figure 1 previews the historical arc that Chapters 4 and 5 unfold.

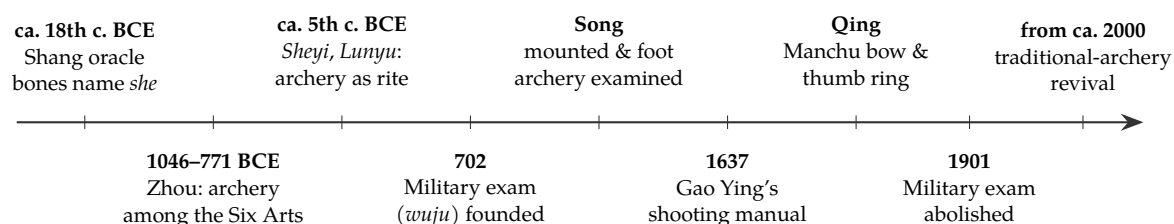


Figure 1: The historical arc of Chinese archery (timeline not to scale; datings of the earliest evidence approximate)

A word on tone belongs here, as it did in Volume I. The bow trains the self by the plainest of means, an arrow that either strikes or does not, and the tradition that grew around this plainness needs no mystification to command respect. This volume tries to earn that respect by accuracy.

## 2. Archery in the Scheme of the Series

### 2.1 The place of the bow between wen and wu

The series to which this volume belongs is built on a single conceptual pair. Classical Chinese culture measured human accomplishment by *wen* 文, the civil, literary, and cultural, and *wu* 武, the martial, and held the complete person to be the one accomplished in both, *wen wu shuang quan* 文武雙全.<sup>11</sup> Volume I unfolded the *wu*; a companion volume treats the *wen*; a short third volume treats the inner cultivation (*xiulian* 修煉, with qigong) that lies beneath both as their common root. Within this architecture archery occupies a particular and revealing position, and naming it exactly is the first task of a deepening volume.

Archery belongs, without question, to the *wu*. It is a weapon skill; it was examined as military competence; Volume I counted it, rightly, as one of the four strands of the martial person.<sup>12</sup> And yet, of all the martial strands, archery reaches farthest into the *wen*. The reason is the one already stated and developed in Chapter 3: the ritual classics made archery a model of moral self-examination, so that its practice trains not only the hand but the disposition. Where the art of war (*bingfa*) touches the *wen* because it is a body of knowledge that is read and written, archery touches it more deeply still, because it is a bodily discipline whose very structure was understood as ethical formation. It is, in the tradition's own terms, the martial skill most thoroughly permeated by ritual and virtue, and therefore the one that best shows why the two halves of the person were never meant to be separated.

This position determines what the present volume does and does not do. It does not restate the general history of the *wu*, nor the derivation of the four strands, nor the account of inner cultivation, all of which Volume I and the third volume carry.<sup>13</sup> It takes archery out of the sur-

<sup>11</sup> On the conceptual pair and its cultural history cf. Louie, Kam, *Theorising Chinese Masculinity. Society and Gender in China*, Cambridge 2002; and Volume I, chap. 2.1.

<sup>12</sup> Volume I, chap. 7.3, where archery stands as the third of four strands, after body-and-weapons work (Kung Fu) and mobility (*yu*) and before the art of war (*bingfa*).

<sup>13</sup> For inner cultivation and the physiology of trained breath, which recurs in the archer's slowing before release, see the third volume of the series; here it is used only as far as understanding the shot requires (Chapter 9.4).

vey and follows it alone, into its ritual texts, its examination records, its material craft, and its recorded method, returning at the end to place it back among the strands (Chapter 8) and to draw the practical consequences (Chapters 11 and 12). Throughout, it keeps visible the seam it is built upon: that in the bow the martial and the civil meet, and that the archer formed by it remains, like every figure in this series, one half of a whole whose other half is the *wen*. Figure 2 shows this placement.



Figure 2: The place of archery: a strand of the *wu* that reaches farthest into the *wen* (the present volume accentuated)

## 2.2 What “archery” means here

A brief clarification of terms guards against a common confusion. This volume treats Chinese archery: the tradition of the composite bow drawn with the thumb, examined by the Chinese state, described in the Chinese ritual and technical literature, and revived today under the name of traditional Chinese archery.<sup>14</sup> It is not a treatise on Japanese *kyudo*, with which the Western reader most often associates “meditative” archery, and whose popular image rests on a book of doubtful reliability discussed in Chapter 10.2. Nor is it a manual of modern Olympic target archery, though that sport supplies much of the experimental evidence used in Chapter 9. The through-line is the Chinese practice and its own understanding of itself; modern sport archery is drawn on for what it can measure, and the Japanese case only as a warning about how traditions are mythologized.

## 3. Ritual Archery: The Bow as a School of the Self

### 3.1 The archery ceremonies of the ritual classics

The custom of the bow was, in the Chinese record, ritual almost from the first. The ritual classics do not merely permit archery; they prescribe it, in ceremonies described with a precision that leaves no doubt of their importance. The *Etiquette and Rites* (*Yili* 儀禮) contains the “District Archery Ceremony” (*Xiangsheli* 鄉射禮), a graded shooting contest at the local level bound up with drinking courtesies and an elaborate etiquette of ascent, salute, and descent; and the

<sup>14</sup> On the thumb draw and the composite bow as the defining features of the East Asian tradition, distinct from the European three-finger “Mediterranean” loose, cf. Selby, *Chinese Archery*; Tian / Ma, *The Way of Archery*; and Chapter 6 below.

“Great Archery” (*Dashe* 大射), a ceremony at the level of the ruler and his officers.<sup>15</sup> The *Book of Rites* (*Liji* 禮記) then adds the interpretive key: its chapter “The Meaning of Archery” (*Sheyi* 射義) does not describe the ceremony but explains what it means. Archery in these texts is at once three things that later ages would separate: a martial skill, a competitive contest, and a religious-moral rite.

The staging of the district ceremony, as the ritual texts preserve it, shows how much more than shooting was involved. Archers competed in pairs, ascending to the shooting position, saluting, shooting in turn, and descending together, the whole governed by a host, assistant officers, and an official who counted the hits and kept the score with counting-tallies; wine was drunk according to fixed courtesies, and the loser of a pair drank a ceremonial cup.<sup>16</sup> The elaboration was not decoration around a shooting match but the substance of the rite: every gesture placed the skill within an order of rank, courtesy, and measure, so that the ceremony trained the participants in exactly the composure and deference it demanded of them. The bow was the occasion; the formation of conduct was the purpose.

The detail of the ceremonies repays attention, because it shows how thoroughly conduct was woven into skill. Music governed the shooting: in the higher ceremonies the archer was to loose his arrows in time with the rhythm of set pieces, so that accuracy alone did not suffice, but accuracy in measure, in composure, and in accord with the rite.<sup>17</sup> Rank was expressed and moderated at the shooting line rather than erased: the etiquette by which a person of lower standing yielded a step to one of higher, preserved among the “five archery skills” as *xiangchi* 襄尺, made deference itself part of the graded art.<sup>18</sup> That one of the five recognized “archery skills” should be a rule of courtesy, and not a way of shooting, is the whole tradition in miniature: skill and conduct were taught as a single matter, and a man who shot well but bore himself badly had not, by the tradition’s measure, shot well at all.

### 3.2 The *Sheyi* and the archer who seeks the fault in himself

The philosophical heart of the matter is a single, much-cited thought, and it is worth stating exactly. In the *Sheyi*, archery becomes the model of moral self-examination: the archer who looses his arrow and misses the mark does not blame the target, nor the bow, nor the wind, nor the man who bested him, but turns and seeks the cause of the miss within himself.<sup>19</sup> The image is exact and, for a practitioner, literally true: in archery the feedback is external, immediate, and unforgiving, and yet its cause is almost always internal, a fault of posture, breath, timing, or attention. The rite therefore fastens onto a real feature of the activity and raises it into an ethic. The same maxim, “to turn and seek within oneself” (*fan qiu zhu ji* 反求諸己), passed from the archery context into the general moral vocabulary of the tradition, where it became a byword

<sup>15</sup> *Yili* 儀禮, chaps. *Xiangsheli* 鄉射禮 and *Dashe* 大射; cf. Selby, *Chinese Archery*, on the ritual orders of the district and the great archery ceremonies; Theobald, *Zhou Period Military*, in: *ChinaKnowledge.de*. Cf. also Volume I, chap. 3.4.

<sup>16</sup> On the staged order of the *Xiangsheli*, the pairing of archers, the officers of the ceremony, the counting of hits with tallies, and the ceremonial drinking, cf. Selby, *Chinese Archery*, whose parallel-text translation of the ritual gives the sequence in detail; and *Yili* 儀禮, chap. *Xiangsheli* 鄉射禮.

<sup>17</sup> On shooting to music in the archery ceremonies and the coordination of release with ritual rhythm cf. *Liji*, chap. *Sheyi*; Selby, *Chinese Archery*. The requirement that the shot fall in time with the music makes ritual archery a test of composure as much as of aim.

<sup>18</sup> Theobald, *liuyi*; cf. Volume I, chap. 2.2, on the “five archery skills” (*wushe* 五射), among which one, *xiangchi*, is not a shooting technique at all but a rule of courtesy.

<sup>19</sup> *Liji* 禮記, chap. *Sheyi* 射義: the archer, having failed to hit, “turns and seeks the cause in himself” (反求諸己). The same phrase recurs in the *Mengzi* 孟子 as a general maxim of self-correction. Cf. Selby, *Chinese Archery*; Volume I, chap. 3.4.

for taking responsibility rather than assigning blame.

Confucius drew the ethical conclusion in a sentence that later ages never tired of quoting. In the *Analects*, he insists that the gentleman contends in nothing, “and if he must, then surely in archery”; for the archers salute and yield as they ascend, descend, and drink together afterward, and “this is the contention of the gentleman.”<sup>20</sup> The point is not that competition is forbidden, but that it is redeemed by form: a real rivalry, with winners and losers, conducted so that courtesy survives the contest and the loser keeps his composure. Here the seam between *wu* and *wen* is most visible. A weapon is drawn and a contest is decided, which is *wu*; but the whole apparatus of the rite exists to make the contest a training in deference and self-possession, which is *wen*. Archery is the one practice in which the tradition could hold both at once without contradiction, and this is why it, more than any other strand, deserves to be understood as the bridge between the martial and the civil.

### 3.3 The five archery skills: how the tradition graded the art

The classical curriculum did not treat archery as a single undifferentiated skill but articulated it into named, graded components, the “five archery skills” (*wushe* 五射), and the list is worth setting out in full, because its composition reveals the tradition’s understanding of what archery was.<sup>21</sup> The first was the *baishi* 白矢, the “white arrow,” a clean shot driven through the target with force enough that the white of the arrowhead showed on the far side, the mark of penetrating power correctly delivered. The second was the *sanlian* 參連, a sequence of rapid successive shots, the mark of fluent, repeatable technique under time. The third was the *yanzhu* 剡注, a shot of a distinctive, well-judged trajectory. The fourth was the *xiangchi* 襄尺, and it is not a shooting technique at all but a rule of etiquette, by which an archer of lower rank yielded a step at the shooting line to one of higher. The fifth was the *jingyi* 井儀, four arrows grouped so as to form the shape of the character *jing* 井, “well,” the mark of precision and consistency.<sup>22</sup>

The composition of this list is itself an argument. Four of the five are matters of skill in the ordinary sense, power, speed, trajectory, and grouping; but the fourth, sitting among them without apology, is a rule of good manners. The tradition did not regard courtesy as a separate subject appended to shooting, but as one of the five things a competent archer was graded on, exactly on a level with the cleanness of his loose and the tightness of his group. This is the same fusion of skill and conduct that the ritual ceremonies enacted and the *Sheyi* interpreted, now visible in the very taxonomy of the art. To shoot well, in the classical understanding, was inseparably to shoot with propriety; an archer who drove the white arrow through the target but shouldered past his senior at the line had failed one-fifth of the art, and not the least fifth. Here, in a dry list of technical terms, the whole ethical character of Chinese archery is quietly encoded.

### 3.4 Archery in myth and the selection for the sacrifice

Two further features of the classical record round out the meaning of the bow, one legendary and one documented, and the series’ method requires that they be kept apart. The legendary feature is that archery generated the foremost Chinese hero-myth of pure skill. In the myths gathered from the Zhou and Han sources, the archer Yi 羿 (also Hou Yi 后羿) is said to have

<sup>20</sup> *Lunyu* 論語 3.7 (*Bayi* 八佾): “君子無所爭，必也射乎！揖讓而升，下而飲，其爭也君子。” Cf. Volume I, chap. 3.4, where this passage anchors the reading of archery as a school of character.

<sup>21</sup> Theobald, *liuyi*; the five *wushe* following the same source. Cf. Volume I, chap. 2.2, where the list is introduced; here it is examined for what its composition reveals about the conception of archery.

<sup>22</sup> Theobald, *liuyi*. The interpretation of the individual terms is partly technical and partly ceremonial; the presence of *xiangchi*, a rule of courtesy, among the “skills” is the decisive point.

shot down nine of the ten suns that once scorched the earth, saving the world by the perfection of his aim.<sup>23</sup> This is myth, and it is named as such; no date, person, or event underlies it. But it is a telling myth, for of all the skills the tradition might have chosen to mythologize as the saving of the world, it chose archery, the skill in which precision, steadiness, and the single decisive release stand for mastery itself. The legend is evidence not of history but of the place the bow held in the Chinese imagination: the archer is the figure in whom skill becomes salvation.

The documented feature is more remarkable still, and it shows how deeply archery was bound into the religious and political order. According to the *Shèyì*, the archery ceremony was not merely a contest of skill or a school of manners but a mechanism of selection with sacred consequences: the ruler, before a great sacrifice, would hold an archery ceremony, and those who shot well, that is, who hit the mark with correct form and in accord with the rite, were admitted to participate in the sacrifice, while those who shot badly were excluded.<sup>24</sup> Skill with the bow thus carried a weight far beyond marksmanship: it governed access to the most solemn acts of the state religion, and a lord's standing could rise or fall with his shooting. The same tradition preserves the memory of Confucius himself as an archer and archery teacher, and the *Shèyì* describes him shooting at a place called Juexiang before so great a crowd of onlookers that they gathered like a wall.<sup>25</sup> That the tradition should remember its supreme teacher of virtue as a practitioner of the bow is no accident; it is the same point the *Shèyì* and the *Analects* make in theory, now embodied in the person of Confucius: the bow belonged to the equipment of the cultivated man, and to draw it well was part of what it meant to be one.

### 3.5 The bow in poetry and idiom: archery in the Chinese imagination

The place of archery in Chinese culture is not confined to ritual codes and examination records; it runs through the literary imagination from its earliest layers. The *Classic of Poetry* (*Shijing* 詩經), the oldest collection of Chinese verse and one of the Five Classics, gathers poems of the eleventh to seventh centuries BCE in which the bow appears as an ordinary and admired part of noble life, in hunting scenes and in the praise of the skilled archer; the poem of the huntsman Shu, “a skillful archer is Shu,” is one of several that make competence with the bow an object of open admiration.<sup>26</sup> That the bow should be so present in the foundational anthology of Chinese poetry confirms what the ritual texts assert from another direction: archery was woven into the ordinary fabric of the cultivated life, not set apart as a specialist military craft.

The deepest cultural sediment, however, is in the idiom, and here archery has left phrases that every educated speaker of Chinese still uses, often without thinking of the bow at all. The expression “to pierce a willow leaf at a hundred paces” (*bai bu chuan yang* 百步穿楊) means supreme, almost superhuman skill, and it descends from the legend of the archer Yang Youji

<sup>23</sup> The legend of Yi shooting down the superfluous suns is preserved in scattered early sources (the *Huainanzi* 淮南子 and others) and belongs to the mythological, not the historical, record. It is reported here as legend, in the manner this series reserves for founding myths (cf. Volume I, chap. 3.1, on the legend of the Yellow Emperor), and no historical claim is attached to it.

<sup>24</sup> *Liji* 禮記, chap. *Shèyì* 射義: the ruler's archery ceremony served to select, among the feudal lords and officers, those permitted to take part in the sacrifice; correct shooting was the qualification, and repeated failure could diminish a lord's standing. Cf. Selby, *Chinese Archery*, on the ritual translation of this passage.

<sup>25</sup> On Confucius as archer and archery teacher, and the scene of his shooting at Juexiang in the *Shèyì*, cf. *Liji*, chap. *Shèyì*; Selby, *Chinese Archery*. That the tradition remembered its greatest teacher as a practitioner of the bow is itself evidence of archery's standing among the accomplishments of the cultivated person.

<sup>26</sup> *Shijing* 詩經 (Classic of Poetry), e.g. the hunting poems of the *Airs* praising the skilled archer-huntsman; the collection dates from the eleventh to seventh centuries BCE and is one of the Five Classics traditionally associated with Confucius. Cf. Selby, *Chinese Archery*, which draws on the *Shijing* for the earliest literary evidence of the bow.

養由基 of the state of Chu in the Spring and Autumn period, who was said to have shot through a chosen willow leaf at a hundred paces.<sup>27</sup> A companion phrase, “a hundred shots, a hundred hits” (*bai fa bai zhong* 百發百中), attaches to the same legendary marksman and has become the ordinary Chinese expression for unfailing accuracy in any endeavor. The philological caution proper to this series applies to these phrases as to any attribution, for the figure of Yang Youji is legendary and the stories accreted around him over centuries; but the point here is cultural rather than historical. When a language makes the skill of the archer its standing metaphor for mastery itself, and preserves that metaphor for two and a half millennia, it registers how central the bow was to the culture’s very idea of excellence. Archery did not merely occupy a place in Chinese education; it lent Chinese its language for what it means to do a thing perfectly.

### 3.6 Why the ritual reading is not mere ornament

It would be easy, and mistaken, to treat this ritual interpretation as a pious gloss laid over a plain military skill. Two considerations show that it is not. The first is that the ritual meaning is documented in the earliest layers of the tradition, in the same classical corpus that transmits the rest of Chinese ceremonial and moral thought, and not added by later schools in search of prestige; unlike the founding legends that this series is at pains to expose, the ethical reading of archery has a genuine textual home in the *Liji* and the *Lunyu*.<sup>28</sup> The second is that the ritual reading corresponds to something a modern practitioner can verify at the shooting line: the discovery, made afresh by everyone who takes up the bow, that the target is an incorruptible mirror, that it reports one’s actual state rather than one’s intention, and that improvement comes only from the turn inward that the *Shenji* demanded. The classical texts, in other words, did not impose a meaning on archery; they read a meaning out of it that the practice itself supplies. This is why, as Chapter 9 shows, modern research on attention finds in archery exactly what the ancient rite claimed to train, and why the ritual account, far from being ornament, is the truest description of what the bow does to the one who draws it.

## 4. Archery as Examined Skill: A Twelve-Century Institution

### 4.1 From ritual contest to state examination

The ritual archery of the Zhou was the practice of an aristocracy whose duties were ceremonial and military at once. As the Zhou order dissolved into the mass-infantry warfare of the Warring States, the aristocratic archery contest lost its military centrality, and the crossbow, a weapon of drilled numbers rather than cultivated individual skill, came to decide battles.<sup>29</sup> Yet archery did not vanish from the martial idea of the person. It was preserved, and indeed institutionalized, by a development that Volume I identified as the decisive turn in the history of Chinese martial education: the creation of a state examination of military skill, in which archery stood at the center.

<sup>27</sup> On the idiom *bai bu chuan yang* 百步穿楊 and the legend of Yang Youji 養由基, cf. the standard idiom dictionaries; the story is set in the Spring and Autumn period and is legendary rather than documented. A companion phrase, *bai fa bai zhong* 百發百中 (“a hundred shots, a hundred hits”), is attached to the same figure. On the treatment of such attributions cf. the proverbs and idioms (*chengyu*) volume of this series.

<sup>28</sup> The contrast with the legendary founder-attributions of later martial arts (treated in Volume I, chaps. 4.3 and 6.1) is deliberate: the ethics of archery is not a retrospective legend but a documented feature of the classical ritual texts.

<sup>29</sup> On the shift from aristocratic archery to mass infantry and the rise of the crossbow (*nu* 弩) cf. Lewis, Mark Edward, *Sanctioned Violence in Early China*, Albany 1990; Lorge, Peter A., *Chinese Martial Arts. From Antiquity to the Twenty-First Century*, Cambridge 2012; and Volume I, chaps. 4.1 and 4.5.

That examination was the work of Empress Wu Zetian 武則天 (r. 690–704), who in 702 established the military examination (*wuju* 武舉) alongside the civil one.<sup>30</sup> Its content is a concise statement of what military competence was then held to be, and archery dominates it. Candidates were tested in long-distance shooting (*changduo* 長垛), mounted archery (*mashe* 馬射), and archery on foot (*bushe* 步射), alongside horsemanship, the mounted lance (*maqiang* 馬槍), and feats of strength such as lifting the heavy door-bar (*qiaoguan* 翹關).<sup>31</sup> That three of the leading subjects are forms of shooting shows the continuity with the Six Arts: the state, in founding its examination, reached back to the archery that Zhou education had already placed at the center of the martial curriculum. With this institution, archery became not merely a skill or a rite but a documented qualification for office, a martial counterpart to the literary examination, though always, as Volume I stressed, of lesser prestige than its civil twin.<sup>32</sup>

#### 4.2 The examination under the later dynasties

The examination founded under the Tang was carried forward, with modifications, for the rest of the imperial era, and archery remained its constant core. The Song reforms that gave strategic theory a canon, the Seven Military Classics, did not displace shooting from the practical examination; mounted and foot archery continued to be tested as the bodily proof of the military candidate, complemented now by an examined knowledge of the strategic texts.<sup>33</sup> Across the centuries the balance of the examination shifted between the bodily and the theoretical, but the bow was never removed from it, and to pass remained, in large part, to shoot.

Under the Qing (1644–1912) the examination took its final and best-documented form. It was held in four stages, in parallel with the civil examination: the first session tested mounted archery (*mashe*), the second archery on foot (*bushe*) together with feats of strength, and the third theoretical knowledge, culminating in an essay on the military classics.<sup>34</sup> Successful candidates rose through the grades of military licentiate (*wusheng* 武生), provincial military graduate (*wu juren* 武舉人), and metropolitan military graduate (*wu jinshi* 武進士), the highest three being styled *wu zhuangyuan* 武狀元, *wu bangyan* 武榜眼, and *wu tanhua* 武探花, exact martial counterparts to the celebrated ranks of the civil examination.<sup>35</sup> That the very structure and titles of the martial examination mirrored the civil one is itself a piece of evidence for the theme of this series: the tradition conceived the martial and the civil as parallel formations, each with its examined path to office, even as it ranked the civil above the martial.

#### 4.3 The strength of the bow: what the examination demanded of the body

The military examination did not test aim alone; it tested strength, and the standard by which it did so has left a concrete record that lets us feel the physical demand the institution made. The

<sup>30</sup> Theobald, Ulrich, *The Chinese Imperial Examination System*, in: *ChinaKnowledge.de*: Empress Wu Zetian introduced a palace examination and a military examination (*wuju*); from 702 the names of examinees were masked. Cf. Volume I, chap. 5.1.

<sup>31</sup> Theobald, *Examination System*; cf. Volume I, chap. 5.1. Of the tested subjects, three of the first named are forms of shooting, which confirms the continuity of the examination with the archery of the Six Arts.

<sup>32</sup> On the enduring precedence of the civil examination over the military, and its cultural consequences, cf. Elman, Benjamin A., *A Cultural History of Civil Examinations in Late Imperial China*, Berkeley 2000; Volume I, chap. 5.4.

<sup>33</sup> On the Song military academy and the canonization of the Seven Military Classics (*Wujing qishu* 武經七書) in 1080 cf. Theobald, Ulrich, *Wujing qishu* 武經七書, in: *ChinaKnowledge.de*; Sawyer, Ralph D., *The Seven Military Classics of Ancient China*, Boulder 1993; Volume I, chap. 5.2. The theoretical examination is treated in Volume I; here the point is only that archery remained the practical core.

<sup>34</sup> Theobald, *Examination System*: the structure of the Qing military examination (*wuke*), with mounted archery, foot archery and strength, and a theoretical essay. Cf. Volume I, chap. 6.3.

<sup>35</sup> Theobald, *Examination System*; the titles of the Qing military graduates follow the same source.

Chinese measured a bow's draw-weight in units of "strength" (*li* 力), and the Qing examination graded its bows accordingly. The examination bows proper ran from eight to twelve *li*, corresponding to draw-weights of roughly one hundred and five to one hundred and sixty pounds; lighter bows of four, six, and seven *li*, some fifty to ninety-odd pounds, served for preparatory training and for demonstrations of strength.<sup>36</sup> These are formidable weights. A modern recreational bow rarely exceeds forty or fifty pounds, and even a heavy modern hunting bow seldom reaches seventy; the examination candidate was expected to draw, with control and correct form, a bow of twice that force or more. Table 1 gives the graded strengths.

Table 1: Graded bow-strengths of the Qing military examination (after Selby)

| Strength ( <i>li</i> 力) | Approx. draw-weight | Use                                              |
|-------------------------|---------------------|--------------------------------------------------|
| 4–7 <i>li</i>           | ca. 50–93 lb        | Preparatory training; demonstrations of strength |
| 8 <i>li</i>             | ca. 105 lb          | Lowest examination grade                         |
| 10 <i>li</i>            | ca. 133 lb          | Middle examination grade                         |
| 12 <i>li</i>            | ca. 160 lb          | Highest examination grade                        |

The demand tells us something about the tradition's understanding of the bow, and it complicates any purely "meditative" image of it. Chinese military archery was, at the examined level, a strength discipline of the first order, closer in its physical demand to heavy athletics than to gentle recreation, and the composure the ritual texts prized was composure maintained under great muscular load. This is not a contradiction of the ethical reading but its ground: the steadiness of attention that the *Shenyi* admired was hard precisely because it had to be held while drawing a bow that fought the archer with a hundred and sixty pounds of stored force. The modern practitioner, who will and should begin with a far lighter bow (Chapters 7 and 11), inherits the discipline of that composure without the extreme load; but he should not imagine that the tradition he draws on was ever soft. It asked for great strength and great calm at once, and it graded both.

#### 4.4 The paradox of the bow's persistence, and its abolition in 1901

A paradox marks the last centuries of the examination, and it bears directly on how a modern reader should understand the bow. By the Qing period, the military bow was already obsolete as a battlefield weapon. The dynasty's actual fighting power lay in its hereditary professional forces, the Eight Banners (*baqi* 八旗) and the Green Standard (*lüying* 綠營), with their own promotion rules and, increasingly, firearms; the examination, with its archery and its feats of strength, had little bearing on real command and grew visibly anachronistic in the age of the gun.<sup>37</sup> And yet the bow persisted in the examination for two full centuries after it had ceased to matter in war. The reason is precisely the one this volume is concerned with: by the late empire, archery had become less a military technique than a cultural and moral discipline, a proof of formation rather than of firepower, and it was retained for what it demonstrated about the man, not for what it could do on a battlefield.

<sup>36</sup> Selby, *Chinese Archery*, on the graded strength-bows of the Qing military examination: examination bows of eight to twelve *li* 力, approximately 105–160 pounds of draw-weight; preparatory and strength bows of four to seven *li*, approximately 50–93 pounds. The conversion of the *li* unit and these figures follow Selby's treatment of the Qing examination requirements.

<sup>37</sup> Theobald, *Examination System*: because of the professional forces of the Eight Banners and the Green Standard, the military examination had "not a great importance" for actual command; its emphasis on archery and strength became anachronistic with the spread of firearms. Cf. Volume I, chap. 6.3.

The end came in 1901, when the military examination was abolished; the civil examination followed in 1905.<sup>38</sup> The abolition is the natural endpoint of archery's imperial history, and it carries a double meaning that the modern practitioner should hold together. On the one hand, it marks the formal death of the institution that for twelve centuries had treated skill with the bow as an examinable form of education. On the other, by severing archery from any military rationale, it left standing only what this volume takes to be the enduring core: the bow as a discipline of attention, posture, and character. The obsolescence of the weapon, in other words, did not destroy the value of the practice; it clarified it. What could no longer be defended as war could still be preserved as formation, and it is on that ground alone, never on a military one, that the revival treated in the next chapter stands.

## 5. The Modern Afterlife: Loss and Revival

### 5.1 A near-extinction

The abolition of the examination in 1901 removed archery's institutional home, and the turbulent century that followed came close to ending the living Chinese tradition altogether. The Republican refoundations of the martial arts, the Jingwu Association of 1910 and the Central Guoshu Institute of 1928, reorganized boxing and weapons practice for a modern, national public, but they did not restore archery to a central place; the bow, unlike unarmed boxing, had no evident modern use to recommend it, neither as self-defense nor as sport, and it slipped to the margins.<sup>39</sup> The making of the traditional composite bow, a craft of great difficulty requiring horn, sinew, and years of patient assembly (Chapter 6), came near to dying with the workshops that had supplied the examination candidates; by the later twentieth century only a handful of traditional bowyers remained, and much technical knowledge survived only in texts and in the hands of a few families.<sup>40</sup> For a period, Chinese archery as a continuous, practiced tradition was a genuinely endangered thing.

### 5.2 The revival of traditional archery

From the late twentieth century, and with gathering pace after about 2000, a revival of traditional Chinese archery took shape, part of a wider international resurgence of interest in historical and "horseback" archery.<sup>41</sup> Its character deserves precise statement, because it is easy to misdescribe. The revival is not a military reconstruction and makes no claim to restore a battlefield art; it is, rather, a cultural and pedagogical recovery, pursued by practitioners, scholars, and craftsmen who study the classical and technical texts, reconstruct the composite bow and the thumb draw, and practice the shooting as an inherited discipline. Its most important scholarly monuments are Stephen Selby's source-based history, which made the classical archery literature available in parallel translation, and the more recent collected volume of Chao, Ma,

<sup>38</sup> Theobald, *Examination System*: the military examination "was abolished in 1901"; on the abolition of the civil examination in 1905 cf. Elman, *A Cultural History of Civil Examinations*. Cf. Volume I, chap. 6.3.

<sup>39</sup> On the Republican reorganization of the martial arts in Jingwu and Guoshu, which centered on boxing and did not revive archery, cf. Morris, Andrew D., *Marrow of the Nation. A History of Sport and Physical Culture in Republican China*, Berkeley 2004; Volume I, chap. 6.4.

<sup>40</sup> On the near-disappearance of traditional Chinese bow-making in the twentieth century and the survival of the craft in a small number of workshops cf. Selby, *Chinese Archery*, on the modern history of the craft; and the collected studies in Chao / Ma / Kim, *Chinese Archery Studies*.

<sup>41</sup> On the contemporary revival of traditional Asiatic archery, its festivals, and its scholarly recovery cf. the studies collected in Chao / Ma / Kim, *Chinese Archery Studies*, which is itself a product and a documentation of this revival.

and Kim, the first English-language scholarly collection devoted specifically to Chinese archery; its most important technical monument is the annotated translation of Gao Ying's 1637 manual, discussed in Chapter 7.<sup>42</sup> The revival, in short, is a scholarly and practical reconstruction rather than a survival, and it is the more honest for knowing this about itself.

The Chinese revival did not occur in isolation but as part of a broader international resurgence of interest in traditional and horseback archery, in which practitioners across East Asia, Central Asia, Anatolia, and the West have reconstructed the composite bow and the thumb draw and revived festival competitions of traditional shooting.<sup>43</sup> This wider context is a mixed inheritance for the Chinese tradition, and honesty requires naming both sides of it. On the one hand, the international movement supplies bowyers, scholarship, community, and a market that make the Chinese reconstruction viable at all. On the other, it brings the risk of homogenization, in which the specific ceremonies, texts, and techniques of the Chinese tradition are blurred into a generic "Asiatic" or "horseback" archery detached from any particular culture, and the risk of commercial mythology, since a market rewards the exotic and the ancient-sounding. The serious Chinese practitioner therefore benefits from the wider revival while guarding the specificity of his own tradition, learning the actual Chinese texts and techniques rather than a marketable pan-Asian pastiche, exactly the discipline the next subsection describes.

### 5.3 What the revival preserves, and what it must guard against

For a series that insists on distinguishing what is preserved from what is invented, the archery revival is an instructive case, and its honest self-understanding is exactly what recommends it. What the revival can genuinely recover is considerable: the classical texts and their ritual meaning, which are documented; the material craft of the composite bow, which can be reconstructed from surviving examples and technical descriptions; and the recorded shooting method of Gao Ying and others, which is written down in detail. What it cannot recover is the unbroken chain of master-to-disciple transmission that a living lineage provides, for that chain was, in most lines, broken; the modern practitioner learns from texts, reconstructions, and a small number of teachers rather than from an intact tradition.<sup>44</sup> This is no reproach; a reconstruction openly conducted is more trustworthy than a fictitious lineage. But it imposes a duty, the same duty this series urges everywhere: to name what is documented as documented, what is reconstructed as reconstructed, and what is uncertain as uncertain, and to resist the temptation, ever-present in a field with commercial and romantic appeal, to dress recovery as unbroken descent. The revival that keeps this discipline preserves the tradition honestly; the one that abandons it merely markets a myth.

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<sup>42</sup> Selby, *Chinese Archery*; Chao / Ma / Kim, *Chinese Archery Studies*; Tian, Jie / Ma, Justin, *The Way of Archery*, Atglen (PA) 2015. These three works are the backbone of the modern recovery in English and of the present volume.

<sup>43</sup> On the international traditional- and horseback-archery revival and its festivals, within which the Chinese recovery took shape, cf. the studies collected in Chao / Ma / Kim, *Chinese Archery Studies*, which document the transnational character of the movement.

<sup>44</sup> On the difference between a preserved lineage and a scholarly reconstruction, and the honesty the latter demands, cf. Volume I, chaps. 6.5 and 8.4, on transmission and the duty of verification. The archery revival, being largely a reconstruction, must be especially candid about the gaps in its transmission.

## 6. The Bow and the Draw: Material Culture of Chinese Archery

### 6.1 The composite bow

The Chinese bow is a composite bow, and this single fact shapes everything about the technique and the tradition built upon it. Unlike the European self-bow cut from a single stave of wood, the Chinese bow is laminated from several materials chosen for complementary mechanical properties: a core of wood or bamboo; a belly, on the side facing the archer, of animal horn, which resists compression; and a back, on the side facing the target, of animal sinew, which resists tension.<sup>45</sup> These layers are bound with animal glue and the bow is built up and cured over a long period, so that in the finished weapon the horn is compressed and the sinew stretched as the bow is drawn, storing energy far more efficiently, for a given length, than a wooden self-bow could. The result is a short, powerful, and strongly recurved bow, well suited to use on horseback and capable of casting a heavy war-arrow, but demanding in its manufacture and sensitive to humidity, which the glue does not tolerate well.

The craft consequences of this construction are considerable and belong to the history of the tradition. A composite bow could take a year or more to build, since the glued laminations had to cure slowly, and the finished bow required care against damp and heat.<sup>46</sup> This is why the near-disappearance of the bowyer's craft in the twentieth century (Chapter 5.1) was so nearly fatal to the tradition, and why its reconstruction is so central to the modern revival: without a maker who can build the bow correctly, the technique described in the classical manuals cannot be practiced as intended. The bow is not a neutral instrument but the material precondition of the whole art, and its recovery is inseparable from the recovery of the shooting.

### 6.2 The geometry of the bow: reflex, recurve, and the rigid ears

The mechanical genius of the composite bow lies not only in its materials but in its shape, and a word on that shape explains much about the technique. Unstrung, the good composite bow curves *away* from the archer, sometimes so strongly that it forms almost a circle in the opposite direction to its braced shape; this "reflex" means that stringing the bow already loads it with stored energy before the archer has drawn a single inch.<sup>47</sup> The working limbs are recurved, bending back toward the target at their outer ends, and, in the Manchu bow of the Qing in particular, terminate in long, rigid "ears" or "siyahs" set off from the working limb by a defined bend or "string bridge" against which the string rests at brace.<sup>48</sup> These rigid ears act as levers: they make the heavy draw smoother, easing the force toward the end of the draw where the archer is weakest, and they help store and return energy efficiently. The distinctive handling of the Chinese, and especially the Manchu, bow, a heavy but manageable draw that "stacks" less cruelly than a simple bow of the same weight, is a direct consequence of this geometry.

A historical note belongs here, because it corrects a common romantic assumption. The draw-

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<sup>45</sup> On the composite construction of the East Asian bow from horn (belly), wood or bamboo (core), and sinew (back), bound with animal glue, cf. Selby, *Chinese Archery*; the technical studies in Chao / Ma / Kim, *Chinese Archery Studies*; and Tian / Ma, *The Way of Archery*, on the equipment of the tradition.

<sup>46</sup> On the long manufacture and the humidity-sensitivity of the composite bow, and on the consequent difficulty of the bowyer's craft, cf. Selby, *Chinese Archery*; Chao / Ma / Kim, *Chinese Archery Studies*. It was this difficulty that brought the craft near to extinction in the twentieth century (Chapter 5.1).

<sup>47</sup> On the reflex and recurve geometry of the composite bow, and on the stored energy that reflex confers, cf. Selby, *Chinese Archery*; the technical studies in Chao / Ma / Kim, *Chinese Archery Studies*. The strongly reflexed unstrung shape is a defining visual feature of the well-made composite bow.

<sup>48</sup> On the long rigid ears (siyahs) and string bridges of the Manchu bow, and their effect of easing the later part of the draw, cf. Selby, *Chinese Archery*; Chao / Ma / Kim, *Chinese Archery Studies*. The Manchu bow is distinguished among composite bows by the length of its ears.

weights demanded of archers were not constant across the dynasties but appear to have declined over the long run, with the heaviest documented military draw-weights belonging to the earlier periods and the later tradition, for all its formidable examination bows, generally lighter than the Tang and Song ideal.<sup>49</sup> The evidence is uneven and the trend must be stated cautiously, but it is a useful corrective to the assumption that “traditional” always means “heavier and more heroic than today.” The bow, like every other element of the tradition, had a history, and it changed.

### 6.3 The thumb draw and its ring

The second defining feature of the Chinese tradition is the manner of drawing the string. Where the European tradition draws with three fingers hooked on the string below the arrow, the so-called Mediterranean loose, the Chinese and the wider East Asian tradition draw with the thumb, which hooks the string and is locked in place by the curled forefinger; the string sits in the crook of the thumb rather than on the finger-pads.<sup>50</sup> To protect the thumb from the great force of a heavy war-bow’s string, the archer wears a thumb ring (in the Manchu tradition *fer-getun*), a cylinder or stepped ring of horn, bone, jade, ivory, or metal, which takes the pressure of the string and releases it cleanly at the loose.<sup>51</sup> The many surviving thumb rings of precious material, especially from the Qing period, testify that the ring became also an object of status and ornament, but its origin and function are strictly practical.

The thumb draw is not a mere curiosity of style; it has technical consequences that run through the whole method. Because the arrow rests on the thumb side of the bow, that is, on the right of the bow for a right-handed archer, rather than on the left as in the Mediterranean technique, the Chinese method places the arrow on the same side as the drawing hand, and the geometry of aim, the paradox of the arrow’s flight around the bow, and the details of the release all differ accordingly.<sup>52</sup> A modern practitioner trained in Western target archery cannot simply transfer technique to the Chinese bow; the draw, the release, and the aim must be relearned. This is one reason the recovery of the recorded method, to which the next chapter turns, matters so much: the thumb draw is a distinct skill with its own faults and its own remedies, and it is precisely these that the classical manuals set out to teach. Table 2 summarizes the principal differences between the two great release traditions.

### 6.4 The arrow and the tackle

The remaining tackle completes the system. The war-arrow was a substantial projectile, longer and heavier than a modern target arrow, fledged for stability and tipped according to purpose; the classical and technical sources describe the matching of arrow to bow and to task as a matter requiring judgment, since an arrow too light for a heavy bow flies wild and an arrow too heavy

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<sup>49</sup> On the apparent decline of military draw-weights from the Tang and Song to the Ming and Qing cf. Selby, *Chinese Archery*, and the discussion in Chao / Ma / Kim, *Chinese Archery Studies*. The point is made cautiously: the evidence is uneven, and the trend is a general one rather than a precise series.

<sup>50</sup> On the thumb draw (the “Mongolian” or East Asian release) as distinct from the European three-finger “Mediterranean” loose, cf. Selby, *Chinese Archery*; Tian / Ma, *The Way of Archery*, which treats the thumb release as fundamental to the method it transmits.

<sup>51</sup> On the thumb ring and its materials (horn, bone, jade, ivory, agate, metal) and on its function in protecting the thumb and cleanly releasing the string, cf. Selby, *Chinese Archery*; Chao / Ma / Kim, *Chinese Archery Studies*. In the Qing period cylindrical thumb rings were the common form.

<sup>52</sup> On the placement of the arrow on the thumb (drawing-hand) side of the bow in the East Asian technique and its consequences for aiming and release, cf. Tian / Ma, *The Way of Archery*; Selby, *Chinese Archery*. This is one of the principal points on which the classical Chinese method differs from modern Western target technique.

Table 2: The two release traditions compared

| Feature           | East Asian (Chinese) thumb draw        | European “Mediterranean” loose            |
|-------------------|----------------------------------------|-------------------------------------------|
| Drawing digit     | Thumb, locked by the curled forefinger | Three fingers hooked on the string        |
| Protection        | Thumb ring (horn, bone, jade, metal)   | Leather tab or glove                      |
| Arrow side of bow | Thumb (drawing-hand) side              | Opposite the drawing hand                 |
| Typical bow       | Short, strongly recurved composite bow | Longer bow, historically often a self-bow |
| Origin            | Eurasian mounted-archery world         | Western and Mediterranean traditions      |

falls short.<sup>53</sup> It is characteristic of the tradition, and consistent with the pedagogy this volume traces, that the sources treat the choice and care of equipment as part of the art rather than as a preliminary to it: the archer who does not understand his tackle is not yet a complete archer. For the modern reader, the practical lesson is modest but real: the Chinese bow is a system, bow, ring, and arrow together, and taking it up means learning the whole system, not merely acquiring a bow.

### 6.5 The bow on horseback: the steppe and the thumb draw

The thumb draw and the short, powerful composite bow are not narrowly Chinese inventions but the shared technology of a vast Eurasian world of mounted archery, and Chinese archery is best understood within that world rather than apart from it. The short bow could be handled from the saddle where a long self-bow could not, and the thumb draw suited the mounted archer, who had to nock, draw, and loose quickly and from awkward angles; the same combination is found across the steppe and the settled empires that bordered it, from the Xiongnu who pressed the Han to the Mongols and, later, the Manchus who conquered Ming China.<sup>54</sup> Mounted archery (*mashe* 馬射) was, as Chapter 4 showed, a core subject of the military examination for the whole of its history, and the Manchu rulers of the Qing in particular prized it as the martial skill of their people and the emblem of their identity, promoting archery and horsemanship as “the root” of Manchu military virtue even as firearms made it obsolete.<sup>55</sup> This context explains a paradox already met in Chapter 4: that the Qing clung to the examined bow long after it had ceased to decide battles. For the Manchus the bow was not only a weapon but a symbol of who they were, and its cultural meaning outlasted its military use, exactly as this volume argues its pedagogical meaning outlasts its military use for the modern practitioner.

The point has a further consequence for how the modern practitioner should think of Chinese archery. It is not an isolated national curiosity but the Chinese branch of one of humanity’s great and widely shared skills, developed over millennia across a continent; its distinctive features, the particular ceremonies, the particular texts, the particular examination, the particular manuals, are Chinese, but the underlying craft belongs to a wider human inheritance. To prac-

<sup>53</sup> On the arrow, its fledging, and the matching of arrow to bow-weight and purpose in the Chinese tradition, cf. Selby, *Chinese Archery*; Tian / Ma, *The Way of Archery*, on the selection and matching of equipment. The principle that arrow and bow must be matched to each other and to the task is common to the technical sources.

<sup>54</sup> On the composite bow and thumb draw as the shared technology of Eurasian mounted archery, and on the military relationship between the settled Chinese states and their horse-archer neighbours, cf. Selby, *Chinese Archery*; Chao / Ma / Kim, *Chinese Archery Studies*; and, on the general military history, Lorge, *Chinese Martial Arts*.

<sup>55</sup> On the Qing promotion of mounted archery as a marker of Manchu identity and martial virtue, and the tension with the obsolescence of the bow, cf. Selby, *Chinese Archery*; Chao / Ma / Kim, *Chinese Archery Studies*. The Manchu emphasis on the bow was cultural and political as much as military.

tice it seriously is to enter both the specific world of the *Sheyi* and Gao Ying and the broad world of the mounted archer, and to owe respect to both.

## 7. The Recorded Technique: Gao Ying's Manual of 1637

### 7.1 The most systematic source of Chinese shooting method

For the actual technique of shooting, the Chinese tradition is richer than is often supposed, and its fullest surviving witness is the manual of Gao Ying 高穎, completed in 1637 at the end of the Ming dynasty. Gao Ying, himself an accomplished military archer, set out to correct what he saw as the confused and superstitious teaching of his day and to establish a correct, “orthodox” method; his work, whose title may be rendered “Orthodox Guide to Martial Archery” (*Wu Jing She Xue Zheng Zong* 武經射學正宗), is the most systematic treatment of shooting technique that the Chinese tradition has left, and it is available in a full annotated English translation by the practitioners and scholars Jie Tian and Justin Ma.<sup>56</sup> That such a manual exists, and in such detail, is itself a corrective to the romantic notion that Eastern archery was a wordless mystery passed only from master to disciple: the Chinese tradition wrote its technique down, argued about it, and sought to teach it correctly, exactly as it wrote down and argued about its rituals and its strategy.

Gao Ying's approach is notable for a quality this series prizes: an insistence on correct fundamentals over showy accomplishment, and a readiness to name and diagnose faults rather than merely to praise good form. He treats the choice of a bow suited to the archer's strength, the building of that strength through correct practice rather than through straining at too heavy a bow, the precise mechanics of posture, draw, and release, and, at length, the characteristic errors that spoil a shot and how to correct them.<sup>57</sup> In this diagnostic, fundamentals-first spirit he is the archery counterpart of General Qi Jiguang, whose near-contemporary military manual warned against “flowery” techniques that impress the eye but fail in combat (Volume I, Chapter 6.1). Both men wrote to replace spectacle with sound method, and both are evidence that the Ming tradition understood technical instruction as a serious, verifiable discipline.

### 7.2 The shape of the method

Although a full technical account belongs to the manual itself, the shape of Gao Ying's method can be summarized, because it illuminates the pedagogy this volume traces. The shot is treated as an ordered sequence in which each stage prepares the next, and in which a fault at any stage propagates into the result: a stable and correctly aligned stance; the nocking of the arrow and the correct grip of bow and string, the latter by the thumb locked under the forefinger and protected by the ring; a draw that brings the string to a consistent anchor without collapse or strain; a steady hold in which aim and breath settle; and a clean release in which the drawing hand does not flinch or “pluck” the string but lets it slip from the thumb.<sup>58</sup> Table 3 sets out

<sup>56</sup> Tian, Jie / Ma, Justin, *The Way of Archery. A 1637 Chinese Military Training Manual*, Atglen (PA) 2015, a full translation and commentary; the original is Gao Ying 高穎, *Wu Jing She Xue Zheng Zong* 武經射學正宗 (1637). Gao Ying wrote expressly to replace confused and superstitious teaching with a systematic, “orthodox” method.

<sup>57</sup> Tian / Ma, *The Way of Archery*: Gao Ying treats the matching of bow-weight to the archer, the gradual building of strength, the mechanics of posture and release, and above all the diagnosis and correction of faults. His emphasis on correct fundamentals over impressive but unsound shooting parallels Qi Jiguang's warning against “flowery” technique (Volume I, chap. 6.1).

<sup>58</sup> The sequence, stance, nock and grip, draw, anchor and hold, release, and follow-through, follows Gao Ying's treatment as translated in Tian / Ma, *The Way of Archery*. The insistence that a fault at an early stage propagates into the result is characteristic of the manual's diagnostic method.

this sequence together with the fault each stage guards against, drawn from the manual's own diagnostic emphasis.

Table 3: The ordered shot in the recorded method (after Gao Ying, 1637)

| Stage                | What it establishes                                                                                 | Fault it guards against                                                  |
|----------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Stance and alignment | A stable, repeatable base; body squared and settled                                                 | Instability and inconsistency that no later stage can correct            |
| Nock and grip        | Correct hold of bow-hand and of the string by the thumb under the forefinger, protected by the ring | A grip that torques the bow or pinches the arrow, spoiling flight        |
| Draw                 | Bringing the string smoothly to a consistent anchor                                                 | Collapse, over-straining at too heavy a bow, an inconsistent draw-length |
| Anchor and hold      | A fixed reference point; aim and breath allowed to settle                                           | A wandering anchor; holding too long until strength fails                |
| Release              | Letting the string slip cleanly from the thumb                                                      | "Plucking" or flinching the drawing hand, the commonest ruin of a shot   |
| Follow-through       | Maintaining posture through and after the loose                                                     | A premature collapse that disturbs the arrow as it leaves                |

Two features of this method deserve emphasis for the argument of the volume. The first is that it is a discipline of building rather than of forcing: Gao Ying insists that the archer begin with a bow he can control and add weight only as correct form allows, exactly the cultivation logic of small, patient increments over years that the whole series identifies as the transferable core of the tradition (Volume I, Chapter 2.3).<sup>59</sup> The second is that the method is thoroughly *self-correcting*: nearly every instruction is framed as the diagnosis and cure of a fault, which places upon the archer the same turn inward that the *Shen* demanded, now as technical self-examination. Here the ritual and the technical traditions meet. What the *Liji* stated as an ethic, that the archer seeks the cause of the miss within himself, Gao Ying's manual operationalizes as a method: a systematic search, stage by stage, for the internal fault that produced the external miss. The bow trains the same disposition whether one reads it as rite or as technique, and this convergence is the strongest evidence that the ritual meaning was no mere ornament laid upon the skill.

### 7.3 Gao Ying's doctrine: strength from structure, and the war on superstition

Two features of Gao Ying's teaching deserve to be drawn out, because they show both the technical sophistication of the recorded tradition and its kinship with the critical spirit of this series. The first is his doctrine of the draw. Gao Ying did not teach the archer to master a heavy bow by main force of the arm, which fails and injures, but by structure: by aligning the skeleton and engaging the large muscles of the back so that the bow is opened between two opposing, balanced forces rather than hauled by the drawing arm alone.<sup>60</sup> This is precisely how a hundred-and-sixty-pound examination bow could be drawn with control and composure: not by being strong enough to wrench it, but by arranging the body so that its strength is trans-

<sup>59</sup> Tian / Ma, *The Way of Archery*, on beginning with a manageable bow-weight and progressing gradually; cf. the cultivation model (*xiulian* 修煉) as the principle of patient, incremental practice, Volume I, chap. 2.3.

<sup>60</sup> Tian / Ma, *The Way of Archery*: Gao Ying's insistence that the draw be powered by correct structure and the engagement of the back rather than by the isolated strength of the drawing arm, so that a heavy bow is controlled through alignment rather than brute force. This is the technical counterpart of the examination's demand for both strength and composure (Chapter 4.3).

mitted efficiently and the load is shared through a sound frame. It is the same principle that Volume I identified at the root of the body strand, that force is transmitted from the ground through an aligned structure rather than generated by an isolated limb, and its appearance in a 1637 archery manual shows how unified the tradition's understanding of the trained body was across its strands.

The second feature is Gao Ying's stance toward the lore of his own day. He wrote, by his own account, to sweep away the confused, secretive, and superstitious teaching that had gathered around archery and to put in its place a clear, tested, transmissible method; he argued from what works and can be demonstrated, and against what is merely asserted or handed down without reason.<sup>61</sup> In this he is a distant ancestor of the very method this series follows. Three centuries before Tang Hao subjected the founding legends of the martial arts to source criticism, a Ming archery master was already insisting that technique be justified by evidence rather than by authority or mystery. The lesson is one this volume has pressed throughout: the impulse to strip away mystification and prefer the demonstrable is not a modern or Western imposition upon the Chinese tradition but a resource within it, and the honest study of archery honors Gao Ying best by extending his own skepticism to the romantic myths that have since grown up around the bow.

## 8. Archery Among the Strands of the Wu

Having followed archery into its ritual, its history, its craft, and its recorded method, it is time to set it back into the whole from which this volume drew it. Volume I presented the *wu* as four interlocking strands, a cumulative curriculum bound by the ethics of *wude* and connected by trained breath: body-and-weapons work (Kung Fu), which establishes the body as foundation; mobility (*yu*), which sets the steadied body into motion; archery (*she*), which refines the resulting calm into precise, repeatable attention under external test; and the art of war (*bingfa*), which directs that disciplined attention outward upon the assessment of real situations.<sup>62</sup> Archery is the third of these, and its placement is not arbitrary. It presupposes the body established by the first strand and the calm established by trained breath, and it prepares, by disciplining attention under an unforgiving external test, the clear judgment that the art of war requires. One cannot, as Volume I put it, hold a quiet mind in an unstable body; archery is what the tradition added once the body and the breath were steady enough to bear it.

Within this architecture, archery has a distinctive role that this volume is now in a position to state precisely. Each strand trains attention in its own key, but archery trains it under the sharpest and most external of tests. In body work the measure of a fault is internal and often forgiving; in archery the measure is an arrow that either strikes or does not, and this externality is exactly what makes archery the tradition's chosen instrument of self-examination. It is, further, the strand in which the ethical frame of *wude* is most fully internal to the practice rather than added to it: the turn inward upon a missed shot, demanded by the *Sheyi* and operationalized by Gao Ying, is at once a technical procedure and a moral one. For this reason archery is best understood not as one martial skill among four, but as the strand in which the whole pedagogy of the *wu*, the joint training of body, attention, and character under an ethical frame, becomes most nearly visible in a single act. Figure 3 shows the four strands with archery accentuated.

<sup>61</sup> Tian / Ma, *The Way of Archery*: Gao Ying's polemical purpose of replacing superstitious and secretive teaching with a systematic, demonstrable method. This critical, anti-superstitious stance anticipates, within the tradition itself, the source-critical spirit this series associates with Tang Hao (Note on the Sources).

<sup>62</sup> Volume I, chap. 7.6 and Figure 5 there. The order, body → mobility → archery → strategy, is a cumulative one in which each strand presupposes the last.

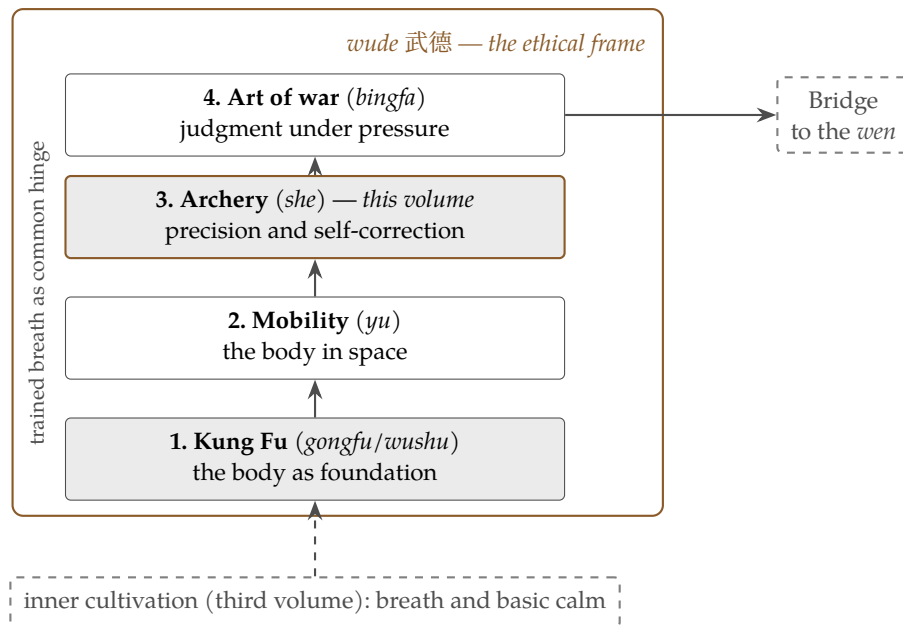


Figure 3: Archery as the third of the four strands of the *wu*, bound by *wude* and connected by trained breath (the present volume accentuated; cf. Volume I, Figure 5)

Setting archery back among the strands also lets us see the connections that run between this volume and the others in the series, connections that the series makes a point of naming rather than leaving implicit. Three are worth drawing here. The first is the figure of the incorruptible mirror. Volume I found in the horse of the mobility strand a surface that returns the practitioner's actual state rather than his intention, and read the target of the *Sheyi* in the same way; the companion volume finds the same honesty in the unforgiving brush and the board of the strategic games, which record every hesitation of the hand. The target is the sharpest of these mirrors because its verdict is the most external and immediate, but it is one of a family, and the archer who learns to read it is learning a lesson the whole series teaches in different materials.<sup>63</sup> The second is the pattern of obsolescence. The war-chariot of the mobility strand and the war-bow of the archery strand both outlived their military use and survived as formation rather than as weapon; in each the tradition preserved a pedagogy after discarding the tool, which is exactly the move this whole series asks the modern reader to repeat.<sup>64</sup>

The third connection is methodological, and it binds the archery volume to the third volume on inner cultivation. Both fields are prone to exaggeration, and both must therefore be reported on an honest gradient of evidence. In the cultivation volume the densest clinical evidence, the fall-prevention and balance data for Taijiquan and qigong, is real but narrower than enthusiasts claim; in this volume the attentional evidence for archery is real but more provisional than the tradition's confidence would suggest. The discipline is the same in both: to state the strength of each claim exactly as it is, to resist the pull of the field's own mythology, and to let the tradition stand on what can be shown rather than on what is wished.<sup>65</sup> These reflections are not digressions. They are the reason the strands were presented as a single curriculum in the first place:

<sup>63</sup> On the recurring figure of the incorruptible mirror across the strands and volumes, target, horse, brush, board, cf. Volume I, chaps. 3.4 and 7.2, and the companion *wen* volume on the arts of the brush and the board.

<sup>64</sup> On the chariot's obsolescence and survival as the mobility strand cf. Volume I, chap. 7.2; the parallel with the bow's obsolescence (Chapter 4.4 above) is exact.

<sup>65</sup> On the honest gradient of evidence in the cultivation field cf. the third volume of the series; the parallel demand for evidential honesty in the archery field is developed in Chapter 9.5 above.

each teaches, in its own material, the same lessons of self-examination, of pedagogy outlasting its tools, and of honesty about what a practice can and cannot do.

## 9. The Modern Evidence: What the Bow Can Be Shown to Train

### 9.1 The starting point: inactivity and the value of any sustained practice

Before turning to what is specific to archery, the general backdrop established in Volume I should be recalled, because it frames the whole question of a modern revival. A large share of the world's adults do not meet the minimum recommendations for physical activity, and the share is rising rather than falling. A pooled analysis of 507 population-based surveys with 5.7 million participants found that the global age-standardized prevalence of insufficient physical activity rose from 23.4 % in 2000 to 26.4 % in 2010 and to 31.3 % in 2022, and that on current trends the international target of a 15 % relative reduction by 2030 will not be met.<sup>66</sup> Against this background, any regularly practiced activity that reaches the recommended threshold already makes a substantial contribution to health, and archery, practiced seriously, involves repeated drawing of a bow, a genuine strengthening load, together with the standing, walking, and postural work of a shooting session. Figure 4 shows the rising prevalence of insufficient activity, with a dashed extrapolation that is emphatically not a study estimate but a simple continuation of the trend, included only to make the direction vivid.

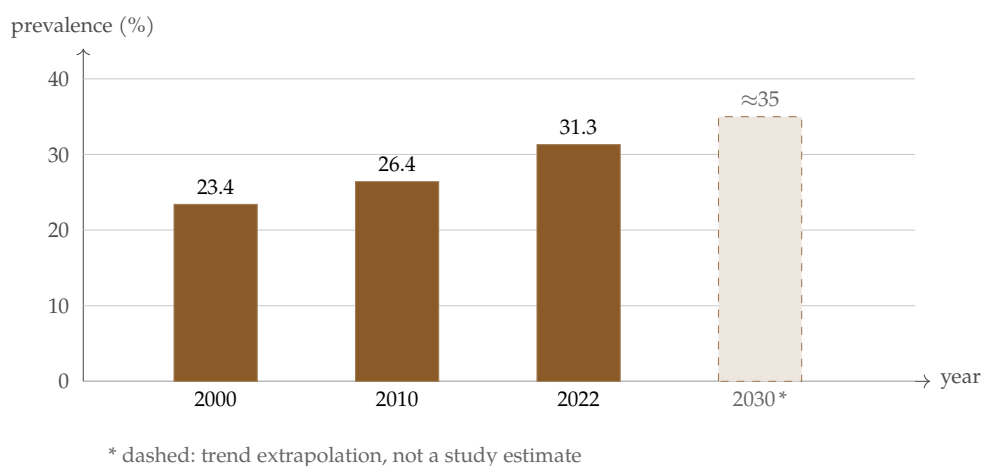


Figure 4: Global age-standardized prevalence of insufficient physical activity among adults, 2000–2022, with a trend extrapolation (Strain et al. 2024; the 2030 bar is dashed and is not a study projection)

This is the weakest and most general benefit, shared with any exercise, and it is stated first precisely because it is the surest. But archery's specific claim, made by the tradition and now partly testable, concerns not the body but the mind, and it is to that claim, in descending order of evidential strength, that the rest of this chapter turns.

<sup>66</sup> Strain, Tessa et al., *National, Regional, and Global Trends in Insufficient Physical Activity among Adults from 2000 to 2022. A Pooled Analysis of 507 Population-based Surveys with 5.7 Million Participants*, in: *The Lancet Global Health* 12/8 (2024), pp. e1232–e1243. Global age-standardized prevalence of insufficient physical activity: 23.4 % (2000), 26.4 % (2010), 31.3 % (2022); the 2030 target will not be met on current trends. Cf. Volume I, chaps. 1 and 8.1.

## 9.2 Attention and the gaze: the “quiet eye”

The most robust experimental finding specific to archery concerns the gaze. Research on aiming skills has identified a phenomenon called the “quiet eye”: a final, steady fixation on the target, held for an extended period immediately before the action is initiated, whose duration distinguishes experts from novices and successful attempts from unsuccessful ones.<sup>67</sup> In archery this has been studied directly: expert archers exhibit longer quiet-eye durations than novices, and archers show longer and more accurate fixations than non-archers even in laboratory aiming tasks, a difference that grows under demanding conditions.<sup>68</sup> The interpretation offered is that the stable, prolonged fixation allows more efficient integration of visual information into the motor program, a mechanism of trained attentional control. This is exactly the capacity the classical sources claimed the bow trains, and it is here that the ritual tradition and the experimental one most nearly coincide: what the *Shèyì* described as composure and inward attention, the laboratory measures as a longer, steadier fixation before release.

An honest statement of what this evidence does and does not establish is required. It shows a reliable correlation between archery expertise and superior attentional control, measured through the gaze; it is consistent with the hypothesis that archery practice trains attention. What it does not establish, because the studies are largely cross-sectional comparisons of experts with novices rather than controlled trials of beginners over time, is the causal claim that taking up archery will improve the general attention of a previously untrained person. That claim is made plausible by the expertise literature but is not proven by it, and the samples in this young field are small.<sup>69</sup> The finding should therefore be held firmly but modestly: promising, convergent with the tradition’s own claim, and not yet a demonstrated intervention effect.

## 9.3 Cortical activity before the release

A second line of evidence comes from the electroencephalogram. Studies of skilled marksmen and archers have long reported characteristic patterns of cortical activity in the seconds before the shot, and in particular a relative quieting of the left temporal region, associated with the suppression of verbal-analytic processing as the well-learned action is allowed to run.<sup>70</sup> More recent work on elite archers, using finer analyses of the moment-to-moment cortical state, finds that the most accomplished archers reach the required attentional state with lower cortical expenditure than merely experienced ones, a hallmark of what is called “neural efficiency.”<sup>71</sup> The picture that emerges from the EEG literature agrees with the gaze research: expertise in archery

<sup>67</sup> On the “quiet eye” as an extended final fixation before an aiming action, first identified by Joan Vickers, and its association with expertise and success cf. Vickers, Joan N., *Perception, Cognition, and Decision Training. The Quiet Eye in Action*, Champaign (IL) 2007; and, for archery specifically, the study cited next.

<sup>68</sup> Gonzalez, Carla F. / Causer, Joe / Grey, Michael J. / Humphreys, Glyn W. / Miall, R. Chris / Williams, A. Mark, *Exploring the Quiet Eye in Archery Using Field- and Laboratory-based Tasks*, in: *Experimental Brain Research* 235/9 (2017), pp. 2843–2855. Expert archers showed longer quiet-eye durations than novices in a field task, and archers showed longer durations and greater accuracy than non-archers in a computer task, with the difference more pronounced under high-noise conditions.

<sup>69</sup> The limitation is inherent in cross-sectional expert–novice designs, which cannot distinguish training effects from selection effects. The same caution was drawn in Volume I, chap. 9.2.

<sup>70</sup> The classic finding is Salazar, William et al. (Landers, Daniel M. / Petruzzello, Steven J. / Han, Myungwoo / Crews, Debra J. / Kubitz, Karla A.), *Hemispheric Asymmetry, Cardiac Response, and Performance in Elite Archers*, in: *Research Quarterly for Exercise and Sport* 61/4 (1990), pp. 351–359, which reported greater left-hemisphere alpha power (a relative quieting) before the release in elite archers. The broader literature on precision-shooting EEG is surveyed in more recent reviews.

<sup>71</sup> *Research on Top Archer’s EEG Microstates and Source Analysis in Different States*, in: *Brain Sciences* 12/8 (2022), article 1017: elite archers showed greater neural efficiency, reaching the required state with lower cortical expenditure than expert but non-elite archers. Cf. Volume I, chap. 9.2.

is marked by a quiet, efficient, and well-focused pre-shot state. The same caveats apply, and more strongly, since EEG samples are typically very small and the field is technically demanding; these findings describe the trained state of experts and do not by themselves prove that training produces it in beginners. They are best read as a physiological portrait of the composure the tradition prized, not as clinical proof of a benefit.

#### 9.4 Breath, arousal, and the pause before release

A third strand of evidence connects archery to the general physiology of breath, and here the ground is firmer, because it rests on a broad and well-replicated literature. Archers, like other precision performers, characteristically slow and steady the breath in the moments before release, often releasing during a controlled pause; and slow breathing is one of the few voluntary means by which a person can act on the autonomic nervous system, raising vagal tone and heart-rate variability and shifting the body toward a calmer, more regulated state.<sup>72</sup> Recent meta-analytic work confirms that guided breathwork produces a small but significant reduction in self-reported stress.<sup>73</sup> The archer's slowing before the loose is thus not a mannerism but an application of a real physiological lever, and it is the same lever that binds all four strands of the *wu* together (Volume I, Chapter 9.5) and that the archer inherits from the inner cultivation of the third volume. This is the mechanism by which the discipline of the bow reaches the state of the whole person: the trained breath that steadies the shot is the same breath that steadies the mind.

#### 9.5 An intervention study, and the honest gradient of evidence

Finally, and closest to a genuine training study, a controlled intervention with archers found that adding a mindfulness-based attentional training to their practice improved both their shooting performance and several measures of cognitive function.<sup>74</sup> This is suggestive, but its logic should be read carefully: it shows that training attention improves archery, which tells us that sustained attention is the trainable core skill of the discipline; it does not, by itself, show the converse, that archery trains general attention. Taken together, the archery evidence forms an honest gradient. Firmest is the physiology of breath, resting on broad meta-analytic support; robust but correlational is the gaze and EEG evidence for superior attentional control in expert archers; suggestive but not yet conclusive is the claim that archery practice improves the attention of beginners. It would betray the source-critical spirit of this series, the spirit of Tang Hao, to overstate any of this.<sup>75</sup> The tradition's central claim, that the bow trains the mind, is supported in its direction by the modern evidence and is contradicted by none of it; but the strength of that support should be stated exactly as it is, which is promising rather than proven. On that honest footing the claim is strong enough to justify taking up the bow, and it needs no exaggeration to

<sup>72</sup> Zaccaro, Andrea et al., *How Breath-Control Can Change Your Life. A Systematic Review on Psycho-Physiological Correlates of Slow Breathing*, in: *Frontiers in Human Neuroscience* 12 (2018), article 353: slow breathing (fewer than ten breaths per minute) raises vagal tone and heart-rate variability and reduces anxiety, depression, and anger. Cf. Volume I, chap. 9.5.

<sup>73</sup> Fincham, Guy W. et al., *Effect of Breathwork on Stress and Mental Health. A Meta-analysis of Randomised-Controlled Trials*, in: *Scientific Reports* 13 (2023), article 432 (12 randomized controlled trials, n = 785).

<sup>74</sup> Wu, Ting-Yi et al., *The Effects of Mindfulness-based Intervention on Shooting Performance and Cognitive Functions in Archers*, in: *Frontiers in Psychology* 12 (2021), article 661961: 23 archers, eight sessions over four weeks; significant improvement in shooting performance and in several cognitive functions. Cf. Volume I, chap. 9.2.

<sup>75</sup> On the duty of sober evidence criticism cf. Henning, *Ignorance, Legend and Taijiquan*; Volume I, chap. 10.2. The honest position is that the tradition's central claim, that the bow trains the mind, is supported in direction by the modern evidence but not yet proven as an intervention effect.

do so.

## 9.6 Archery among the precision disciplines

It helps to situate the archery evidence within the wider study of precision-aiming skills, because doing so both strengthens and bounds the case. The quiet eye and the pre-shot cortical quieting are not peculiar to archery; they have been found across a family of aiming and precision tasks, from golf putting and basketball free-throws to pistol shooting, in which experts consistently show longer final fixations and more efficient, quieter cortical states before the critical action.<sup>76</sup> That archery belongs to this family is reassuring, because it means the archery findings are corroborated by a much larger literature on aiming in general; the mechanisms seen in archers are the same well-studied mechanisms of attentional control seen in other precision experts. But it also bounds the claim in an important way. Whatever archery trains, it trains as one member of a class of precision disciplines, and there is no evidence that the bow is uniquely or magically potent among them; a person who took up target pistol or even competitive darts with equal seriousness would likely train much the same attentional capacities.

This is worth stating plainly, because it guards against a particular overreach to which traditions like this one are prone: the claim that their specific practice possesses a special, almost mystical power to transform the mind that ordinary skills lack. It does not. What recommends archery over other precision disciplines is not a superior training effect, which is unproven, but the things this whole volume has described: its documented ritual and ethical tradition, its depth of recorded technique, its cultural richness, and its place within an integrated formation of the person. These are excellent reasons to prefer the bow; a secret cognitive magic is not among them, and the honest case does not need it.

## 10. Challenges and Honest Limits

A defensible account of archery must state plainly what the practice cannot do and where its recovery can go wrong. Four limits deserve emphasis, and the first is peculiar to archery among the strands of the *wu*.

### 10.1 The obsolescence of the weapon

The first limit is that archery, alone among the four strands, has lost its original function entirely. Body work and mobility still train a body that must move; the art of war still informs decision under competition. But the war-bow is obsolete, superseded by firearms centuries ago, and no honest account can pretend otherwise or smuggle in a self-defense rationale.<sup>77</sup> This is not, however, a defect of the case made here, because that case never rested on the weapon. What archery trains, the discipline of precision, attention, breath, and self-correction under an unforgiving external test, is fully intact and independent of whether the arrow is ever again loosed in anger. The reader who wants a practical fighting skill should look elsewhere in the *wu*; the reader who wants the formation that the bow uniquely provides loses nothing by the weapon's obsoles-

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<sup>76</sup> On the quiet eye and the pre-action cortical state as general features of precision-aiming expertise across sports cf. Vickers, *Perception, Cognition, and Decision Training*; and, for archery specifically, Gonzalez et al., *Exploring the Quiet Eye in Archery*. That archery shares these features with other aiming skills both corroborates the findings and shows they are not unique to the bow.

<sup>77</sup> The obsolescence of the military bow was already the reason for the abolition of the archery-centered military examination in 1901 (Chapter 4.4). No modern justification for archery can rest on military or self-defense utility.

cence. It is worth being this blunt, because a tradition that must disguise its own uselessness as a weapon in order to justify itself has already begun to lie.

## 10.2 The “Zen archery” myth and the danger of mystification

The second limit is the one this subject invites most strongly: mystification. The popular Western image of Eastern archery as a wordless, mystical, quasi-religious discipline derives overwhelmingly from a single short book, Eugen Herrigel’s *Zen in the Art of Archery* of 1948, an account of the author’s study of Japanese *kyudo*. That book’s reliability has been seriously undermined by later scholarship. Shōji Yamada has shown that its central spiritual episodes rest in part on mistranslation by Herrigel’s interpreter and on Herrigel’s own prior determination to find Zen in the practice, and that the identification of archery with Zen which the book made famous is historically unfounded even for Japan.<sup>78</sup> Three points follow for the present volume. First, the book concerns Japanese *kyudo*, not Chinese archery, and cannot be transferred to the latter in any case. Second, even as an account of *kyudo* it is unreliable, and this volume draws no evidence from it. Third, and most important, it is a model of exactly the error this series exists to resist: the flattening of a documented, technical, and ethical tradition into a marketable mystique. The Chinese ritual meaning of archery is real, but it is textual and moral, set out in the *Liji* and the *Lunyu*, and it is degraded, not honored, when it is dissolved into a vague “ancient wisdom.” The remedy is the one this volume has practiced throughout: read the actual texts, use the terms correctly, and prefer the documented to the evocative.

## 10.3 Cultural distortion and appropriation

The third limit is cultural, and it follows from the second. Chinese archery is a specific tradition with a specific vocabulary, technique, and ethical world; to extract its outward forms while discarding their meaning, or to repackage it as generic wellness or “mindful” recreation, is both intellectually wrong and a form of disrespect that the wider field has repeatedly suffered.<sup>79</sup> The terms carry their world with them: *she* is bound to the ritual of the *Sheyi*, *wude* to a moral tradition, the thumb draw to a particular technical lineage, and none of these should be reduced to a slogan. A serious modern practitioner studies the history, learns the technique as it was actually recorded, acknowledges what the modern reconstruction has had to supply, and neither claims an unbroken lineage he does not have nor drains the practice of the meaning that makes it worth preserving. This volume’s insistence on precise sources is itself a part of this ethic, not a scholarly decoration upon it.

## 10.4 Injury, evidence, and time

The fourth set of limits is practical and quickly stated. Archery is physically gentler than the impact-loaded martial strands, but it is not without risk: the repetitive drawing of a bow, especially one too heavy for the archer, can strain the shoulder, elbow, and back, and Gao Ying’s own insistence on beginning with a manageable bow-weight is, read in modern terms, sound injury prevention as much as sound technique.<sup>80</sup> The limits of the evidence have already been stated in

<sup>78</sup> Yamada, Shōji, *The Myth of Zen in the Art of Archery*, in: *Japanese Journal of Religious Studies* 28/1–2 (2001), pp. 1–30. Herrigel’s key episodes occurred without a competent interpreter present or were rendered through intentionally liberal translations; the book’s core identification of archery with Zen is not historically supported.

<sup>79</sup> On the commercial flattening and cultural distortion of the Chinese martial tradition cf. Lorge, *Chinese Martial Arts*; Kennedy / Guo, *Chinese Martial Arts Training Manuals*; and the discussion in Volume I, chap. 10.3.

<sup>80</sup> On beginning with a controllable bow-weight and progressing gradually, cf. Tian / Ma, *The Way of Archery*; the same principle prevents the overuse strain to which drawing too heavy a bow leads. The general warning

Chapter 9 and need only be recalled here: the physiology of breath is well supported, the attentional superiority of expert archers is robust but correlational, and the claim that archery trains the attention of beginners is promising but unproven. And the last limit is the one no method removes: embodied skill takes time, and the thumb draw in particular is a distinct skill that must be built patiently. Any program or teacher that promises mastery quickly should be distrusted on principle. What a sound practice can offer is not speed but durability: a way of taking up the bow that keeps the practitioner improving slowly over years, protected against strain, and held within the ethical frame that makes the practice a formation rather than a pastime.

## 11. Taking Up the Bow: Design Principles for a Modern Practice

This series ends its volumes with practice, and this one does so in a lighter form than Volume I, because archery is a deepening of one strand rather than a whole curriculum, and because the general training architecture, the tiered plans and the weekly rhythm, is already set out there and need not be rebuilt.<sup>81</sup> What follows is not a training plan but a set of principles for taking up the bow honestly, each drawn from the history and evidence of the preceding chapters. They are offered as design constraints, within which a practitioner, ideally with a teacher, can build a practice suited to his own circumstances.

The first principle is *correct fundamentals before strength or spectacle*. This is Gao Ying's own first rule, and modern injury science agrees with it: begin with a bow light enough to control with correct form, and add draw-weight only as sound technique allows, never by straining at a bow too heavy to master.<sup>82</sup> The archer who forces weight buys the appearance of accomplishment at the cost of both technique and joints, and violates the cultivation logic on which the whole tradition rests.

The second principle is *daily ritual and patient increment*. The cultivation model (*xiulian*) that governs the series applies to archery with unusual directness, because the shot is a small, repeatable act ideally suited to short, regular practice: a modest number of well-made shots, or even dry-draw and posture work without an arrow, done attentively and daily, builds the skill more surely than occasional long sessions.<sup>83</sup> A few minutes of correct daily practice over a year teaches more than a rare afternoon of many arrows abandoned in a month.

The third principle is *attention as the true subject*. The evidence of Chapter 9 and the ethic of the *Shenji* converge on a single instruction: treat each shot as an exercise in sustained attention and honest self-examination, not as a bid for a score. Practically, this means slowing the breath before release, holding a steady final fixation on the mark, and, after each shot, seeking the cause of any miss in one's own posture, breath, or timing rather than in the equipment or the conditions.<sup>84</sup> The arrow's flight is feedback on the inner state; the inner state is the thing being trained.

The fourth principle is *verified transmission and honest reconstruction*. Because the archery tradition reaches the modern practitioner largely through reconstruction rather than unbroken lineage (Chapter 5.3), two disciplines are indispensable: where possible, learn the thumb draw

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against premature intensity is developed in Volume I, chap. 10.1.

<sup>81</sup> For the full training architecture, tiered plans for different time budgets and a staged progression, see Volume I, chaps. 11 and 12. The principles below adapt that architecture to archery rather than duplicating it.

<sup>82</sup> Tian / Ma, *The Way of Archery*, on bow-weight and gradual progression; cf. Chapter 7.2. This is at once the classical rule and modern injury prevention.

<sup>83</sup> On the cultivation model of small, daily, patient practice cf. Volume I, chaps. 2.3 and 11. Archery's repeatable single act makes it especially amenable to short daily practice, including form work without shooting.

<sup>84</sup> On the quiet eye, the pre-shot breath, and the ethic of seeking the fault within, see Chapters 3.2 and 9.2–9.4. The point of practice is the trained attention, of which the arrow's flight is only the external report.

from a competent teacher, since it is a distinct skill that texts alone teach poorly and that a beginner can easily learn wrongly and painfully; and apply to every teacher, style, and claim the same source-critical scrutiny this volume has applied to history, trusting those who name their sources, their abilities, and the gaps in their transmission, and distrusting those who promise the ancient, the secret, or the fast.<sup>85</sup>

The fifth principle is *the ethical frame* (*wude*). Archery is the strand in which the ethical frame is most nearly internal to the practice, and it should be practiced accordingly: with care for the body, one's own and others'; with the courtesy toward fellow practitioners that the ritual contest itself prescribed; with patience for slow progress; and, since a bow remains a weapon capable of harm, with strict attention to safety and to the mastery, rather than the display, of a dangerous instrument.<sup>86</sup> This is not decoration upon a hobby. It is, as the whole history has shown, the element that makes the bow an education rather than a pastime, and the point at which archery, like every strand of the *wu*, calls for its *wen* complement.

These principles translate into a modest and realistic shape for beginning, offered here not as a prescriptive plan, the full training architecture belongs to Volume I, but as an illustration of how the principles cohere. A beginner does well to start with form work before power: to spend the first weeks on posture, on the correct thumb hook and its protection by the ring, and on the smooth structural draw, at first with a light bow or even with an elastic band or unstrung practice, before shooting for a mark at all. Once a stable form exists, short and frequent sessions serve better than rare long ones, and a session is better measured by the number of *well-made* shots than by the number of arrows loosed; a handful of attentive shots, each followed by an honest search for the cause of any error, teaches more than a quiver spent carelessly. The breath is folded in from the start, a deliberate slowing before each release, and the bow's weight is raised only as sound form allows, never to impress and never at the cost of the joints. Where a competent teacher of the thumb draw can be found, regular correction shortens the road and prevents the ingrained faults that texts alone cannot catch; where none can be found, the practitioner leans the more heavily on the recorded method and on ruthless honesty about his own form. None of this is fast, and the volume has promised throughout that it would not pretend otherwise. What it offers is a way of beginning that can be sustained for years, which is the only timescale on which the bow gives up what it has to teach.

## 12. Conclusion: The Incorruptible Mirror

Of all the strands of the martial tradition, archery is the one that most fully deserves the name of education, and this volume has tried to show why. It began as a weapon and a rite in the same act; the ritual classics made it the model of moral self-examination; the state examined it for twelve centuries; a Ming officer wrote its technique into a systematic method; and the modern sciences of gaze, cortex, and breath find in it, so far as they can measure, what the ancient rite claimed it trained. Through all these transformations one thing held constant, and it is the thing worth preserving: the bow is an incorruptible mirror. It reports the archer's actual state, not his intention; it cannot be flattered; and it therefore compels the turn inward that the *Sheyi* demanded and Gao Ying operationalized, the search for the cause of the miss within oneself. The target, the horse of the mobility strand, and the unresisting brush of the civil arts are, as this series has noted before, the same teacher in different guises: an honest surface that

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<sup>85</sup> On verified transmission and the duty of scrutiny in a field without intact lineage cf. Volume I, chaps. 6.5 and 8.4; and Chapter 5.3 above.

<sup>86</sup> On *wude* as the ethical frame of the martial strands cf. Volume I, chap. 2.4; on the ritual courtesy of the archery contest, Chapter 3.1 above; the safety obligation follows directly from the fact that a bow can injure.

returns exactly what one brings to it.<sup>87</sup>

The honest conclusion is therefore neither romantic nor dismissive. Chinese archery cannot be revived as a weapon, and it should not be sold as a mystery; its popular Western image is in part a myth, and its evidence base, though real, is modest and must be stated as such. But its pedagogy, the joint training of posture, breath, attention, and character under an unforgiving external test and within an ethical frame, is intact, transferable, and worth the effort of a serious practitioner. It asks only what the whole tradition asks: patient, daily practice over years, honestly conducted, in preference to the fast, the secret, and the exaggerated.

And it remains, as everything in this series remains, one half of a whole. The archer who seeks the fault within himself is already practicing a piece of *wen*, the moral self-examination that the civil tradition made its center; the courtesy of the ritual contest is *wen*; the very texts that give archery its meaning are the classics of the civil tradition. The bow, drawn to its full meaning, points beyond itself to the book. This is why the volume closes, as its companions do, by naming what it cannot complete: the *wu* of the bow finds its wholeness only in the *wen*, and the complete person of the tradition, *wen wu shuang quan*, is the one in whose single hands the bow and the book are once again laid together.

## Glossary

| Term                       | Meaning                                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------------------------------|
| <i>bushe</i> 步射            | Archery on foot; a subject of the military examination.                                                      |
| <i>Dashe</i> 大射            | The “Great Archery,” a state-level ritual archery ceremony of the Yili.                                      |
| <i>fan qiu zhu ji</i> 反求諸己 | “To turn and seek within oneself”; the maxim of self-correction drawn from the archery of the <i>Sheyi</i> . |
| <i>fergetun</i>            | The Manchu thumb ring, worn to protect the thumb in the thumb draw.                                          |
| Gao Ying 高穎                | Ming-dynasty military archer, author of the 1637 shooting manual <i>Wu Jing She Xue Zheng Zong</i> .         |
| <i>liuyi</i> 六藝            | The “Six Arts” of Zhou education: ritual, music, archery, charioteering, writing, reckoning.                 |
| <i>Lunyu</i> 論語            | The <i>Analects</i> of Confucius; 3.7 is the locus classicus on archery as the gentleman’s contest.          |
| <i>mashe</i> 馬射            | Mounted archery; a core subject of the military examination for twelve centuries.                            |
| Mediterranean loose        | The European three-finger release, contrasted with the East Asian thumb draw.                                |
| <i>she</i> 射               | Archery; one of the Six Arts and the subject of this volume.                                                 |
| <i>Sheyi</i> 射義            | “The Meaning of Archery,” the chapter of the <i>Liji</i> interpreting archery as moral self-examination.     |
| thumb draw                 | The East Asian release, in which the string is drawn by the thumb locked under the forefinger.               |
| <i>wen</i> 文               | The civil, literary, and cultural pole of Chinese education.                                                 |

<sup>87</sup> On the recurring figure of the incorruptible mirror, the target, the horse, the brush, the board, across the strands and volumes of the series, cf. Volume I, chaps. 3.4 and 7.2. The archer’s target is the sharpest of these mirrors because its verdict is the most external and immediate.

|                                   |                                                                                                                |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------|
| <i>wu</i> 武                       | The martial pole; archery is one of its four strands.                                                          |
| <i>wude</i> 武德                    | “Martial virtue”; the ethical frame of the martial strands.                                                    |
| <i>wuju</i> 武舉                    | The military examination, founded in 702 and abolished in 1901.                                                |
| <i>wushe</i> 五射                   | The “five archery skills” of the classical curriculum, one of which ( <i>xiangchi</i> ) is a rule of courtesy. |
| <i>wen wu shuang quan</i><br>文武雙全 | “Complete in both the civil and the martial”; the guiding ideal of the series.                                 |
| <i>Xiangsheli</i> 鄉射禮             | The “District Archery Ceremony” of the <i>Yili</i> , a local ritual archery contest.                           |
| <i>xiulian</i> 修煉                 | “Cultivation and refinement”; the model of patient, incremental, transforming practice.                        |
| <i>Yili</i> 儀禮                    | “Etiquette and Rites”; contains the ritual orders of the district and great archery ceremonies.                |

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## A Methodological Closing Note

This volume has held throughout to the method of the series. Founding legend, datable institution, and modern empirical finding have been kept apart and labeled; the ritual meaning of archery has been drawn from the classical texts that actually contain it, not from later or foreign romanticizations of it; the institutional history has followed the reference scholarship; the technique has been taken from the recorded manual rather than from imagination; and every modern empirical claim has been verified against its primary publication and stated with its limits. Where the tradition's own claims about the bow could be tested against modern research, the two were compared honestly, and the strength of the agreement, real in direction, modest in force, was reported as it is rather than as one might wish it. The subject of archery, more than most, tempts its writers toward mystification; the answer offered here is the answer the tradition itself gave in the *Shenji* and in Gao Ying's manual, which is to seek the cause of every miss within, and to prefer the plain and verifiable to the impressive and unfounded. The tradition needs no exaggeration to be worth preserving; it gains when one looks at it closely, and the bow, of all its instruments, rewards the closest looking of all.