Introduction to the *Yu-ku-chai-ch'in-p'u*

Yu-ku-chai-ch'in-p'u (與古齋琴譜) is a handbook on the gu-ch'in (古琴), the Chinese seven-stringed zither, published in 1855 in Fukien province by the ch'in-master Chu Feng-chieh (祝鳳喈). *Yu-ku-chai* literally means, "abiding with antiquity studio" and is the name of the studio where Chu studied the ch'in. **Ch'in-p'u** is a technical term describing a variety of book usually devoted to notation of ch'in songs. Usually a ch'in-pu is a book that describes how to play a set of music pieces via fingering symbols. However *Yu-ku-chai* is an unusual handbook in that it deals with ch'in music theory, construction techniques, and matters related to the care of a ch'in, and does not contain any musical notation.

In Taiwan in 1975, after I had been studying how to play the ch'in for a while, I decided to locate this book and study ch'in construction methods for myself. Sun Yu-ch'in (孫毓芹), a ch'in-master who lived in Taipei, was introduced to me by my friend, John Thompson. Mr. Sun had a handwritten copy of the second volume, which was solely concerned with ch'in construction techniques. He was interested in having ch'in made for his students and left out the parts of the *Yu-ku-chai* not relevant to that task. With considerable help I managed to wade through the manuscript and upon returning to the U.S., discovered that the Library of Congress had a complete copy of the original printed book. In 1977 I obtained a microfilm and somewhat revised the original translation. Robert Van Gulik, presumably had a copy of the *Yu-ku-chai*, as he mentions it in his book, *The Lore of the Chinese Lute.*[1] The *Yu-ku-chai* exists in libraries in China, but it seems that private copies of it may be rare.

Chu Feng-chieh divided his book into four volumes. The first volume is titled: *Hsuan-lu-k'ao-shih* (弦律考實), "examination of the string tones". It provides a comprehensive analysis of traditional Chinese pitch theory. Volume II, the major portion of this translation, has the title: *Ts'ai-chih fa-wei (*材製發微), "detailed examination of materials and construction," and is a treatise on ch'in construction. Volume III is titled: *Hsueh-ch'in pei-yao (*學琴備要), "complete essentials for ch'in study." It presents what could best be summed up as everything one should know about ch'in accouterments and related procedures, including the names of ch'in parts, how to hang ch'in on walls, ch'in tables, silk string construction, ch'in restringing, etc. The last volume is titled: *T'an-ch'u hui-chieh* (彈曲會解), "thorough explanation of how to play the melodies." This volume deals with the fingering symbols, providing explanations and diagrams. I have translated all of Volume II on ch'in construction, some but not all of Volume III, including sections on nomenclature, silk strings, ch'in tables, hanging hooks, and tuning. All of the important parts of Volume IV on fingering have been translated as well barring some short introductory passages. In time I hope to expand the translation to include a few more sections from Volume III that are of general interest to ch'in students or scholars.

[1] c.f. Robert Hans Van Gulik, *The Lore of the Chinese Lute* (1940; rpt. Tokyo: Sophia University, 1960), p. 31.

Musicologists and ch'in players should note that the first volume of the well-known handbook *Ch'in-hsueh ru-men* (琴學入門), as its author Chang Ho (張鶴) intimates in his preface of 1864, is an edited version of the last two volumes (III and IV) of *Yu-ku-chai*. Chang Ho's book has two volumes. The first volume presents a practical body of information for students on fundamentals like fingering and putting on strings. The second presents music in the traditional tablature form. From my examination it appears that Chang used quite a bit of *Yu-ku-chai*'s volume IV and some sections from volume III to construct his first volume. Curiously, both of the ch'in teachers I have studied with have occasionally announced that a certain piece was from *Yu-ku-chai* originally. This is of course impossible since that book contains no music. It appears that the songs came from *Ch'in-hsueh ru-men* instead. According to Hsu Chien's recent book, *A Newly Edited History of the Ch'in*, Chang Ho was Chu's student and much if not all of the music came from the Chu family.[2] Thus it is fair to say that the books are intimately related or put another way, *Ch'in-hsueh ru-men* is an edited version of the last two volumes of *Yu-ku-chai* with an extra volume of music. As a natural consequence, this translation includes major sections of *Ch'in-hsueh ru-men,* although there can be minor textual differences.

As for the author, Van Gulik states that Chu was from Chekiang.[3] Furthermore, Van Gulik studied with Yeh Ho-fu (葉鶴伏), who in turn had taken ch'in lessons from Chu.[4] In 1864, Chu republished the famous *Ch'un-ts'ao-t'ang-ch'in-p'u* (春草堂琴譜).[5] The *Ch'in-shu-ts'un-mu* (琴書存目) or "Catalogue of Ch'in Books", compiled by Chou Ch'ing-yun (周慶雲), published circa 1915, states that Chu was from P'u-ch'eng, the county seat of P'u-ch'eng county in north Fukien province. His style was T'ung-chun (桐君), meaning "Master of Tung".[6] Two better sources on Chu are his own introduction to *Yu-ku-chai* and the P'u-ch'eng County Gazetteer (埔城縣志), which I quote in full below.[7]

First from *Yu-ku-chai*:

> Our late father formerly possessed a ch'in. My elder brother Ch'iu-chai (秋齋) practiced assiduously and also took his pleasure in polite literature. Further he instructed himself in social discourse. But we were left bereft when our father died. My brother was then just thirty and I was only sixteen. Family affairs daily worsened and we depended on our mother for support. I served my elders, carrying out minor tasks, and consequently abandoned study for the examinations. When I was nineteen I began to listen to my brother's playing of the ch'in left behind by our father. At first it struck me as rather insipid, but gradually I began

---

[2] See p. 173 in Hsu Chien (許健), Ch'in-shih-chu-pian (琴使初編), (Beijing, People's Music Publishing Company, 1982).
[3]Ibid., p. 192.
[4]Ibid., p. 210.
[5]Ibid., p. 187.
[6]Note that T'ung-chun means "Master of T'ung"; that is, paulownia, the principal and favorite wood from which ch'in were constructed.
[7]*P'u-ch'eng hsien-chih* (1900; rpt. Taipei: Ch'eng-wen ch'u-pan she, 1967).

to understand the music. Then I requested him to teach me the fingering symbols. After a long time, I was able to play some melodies. Daily I practiced, never ceasing. After I had begun to comprehend the rhythms, my brother then began to instruct me in the standard pitches. He introduced the theories of former men and strictly analyzed them for their correctness, clarifying what they had left unclear. Although I was obtaining some enjoyment from this, still I had not yet comprehended the inner meaning. One day my brother gravely admonished me and said: "Ch'in is one of the arts for enjoyment. How can you pay attention merely to the trivia of sound? You must respect ethical considerations, cultivate your character, and then you can hope for serenity of mind and understanding of the ancients." So then every time my brother read from classical literature he would bring out some moral teaching of the ancients in order to move me along the proper path. He provided some kind of moral stricture for everything, be it daily life at home or in the world, and even concerning eating, drinking, and conversation. I may not be very bright, but with the help of his teaching, it seems that occasionally something good was gained, although my brother would not admit it. After a few years my brother ordered me to write down various principles of ch'in construction and a few things on the fingering symbols. He said: "All of music springs from the mind of man.[8] The mind controls the emotions. The construction techniques and the fingering symbols manifest the mental state. The ear discriminates, and so you can examine what kind of emotional state you have been in recently." I reverently received his teaching, and set my course on self-examination. Months and years flew by. In 1847, our mother died. I followed my brother into mourning. After the mourning rites ended, in the autumn of 1850, I again turned to the ch'in and worldly affairs, subordinating my fingers to the seven strings. At this time, according to my estimate, I had been studying the ch'in with my brother for over thirty years. My brother revised what he had previously taught me, and we began an examination of the string pitches. He ordered me to finish editing a (ch'in) handbook. And so I studied the fingering explanations and researched the pitches, seeking out what was correct about the ch'in. Whatever people before me had put in their handbooks, if they dealt with a subject in a terse manner, I tried to analyze and treat the subject at length. If there were differing opinions, I tried to expand them so that similarities could be seen. It was my desire that the text should be exhaustive and not simplistic. At the same time, the meaning should be clear and not too abstruse. So I accepted his command and wrote a manuscript. In May 1851, my brother passed away. Since then four years have quickly passed. I have revised the old manuscript, while sadly recalling my brother's words. I first prepared the four volumes for publication and then thinking of the "Yu-ku" study where my brother passed his hours and taught me the ch'in, I applied that name to the book.

According to the P'u-ch'eng county gazetteer concerning Chu Feng-chieh:[9]

---

[8]This is a quotation from the Music Annals section of the *Book of Rites* (*Li chi*).
[9]*P'u-ch'eng hsien-chih*, p. 357.

> "His style was Tz'u Yung (次邕).[10] He began his career with the academic title "Collegian of the Imperial Academy of Learning" and then served as a sub-prefect in Chekiang overseeing a coastal defense office. Later he served the prefect of Shao-hsing prefecture."

Another section from the gazetteer concerns both brothers:

.

> Chu Feng-ming's style was Chiu-chai and he was a Senior Licentiate.[11] Chu Feng-chieh's style was T'ung-chun. His first post was a Chekiang Eastern Defense sub-prefect. Feng-ming and Feng-chieh were elder and younger brothers respectively. Both were skilled in music, especially in playing the ch'in. They only played the old melodies and did not play fashionable and extravagant music of the era. Their home was situated amidst woods with a garden. They possessed over ten ch'in. They took the best and constructed a "Pavilion of Twelve Ch'in" in which to store them. The elder took the initiative and the younger followed. They led a life of quiet harmony. The personality of Feng-ming was quiet and free from care. He applied himself to poetry and isolated himself from the cares of the everyday world. Daily he amused himself with the ch'in, wine, poetry, and painting. Feng-chieh went to Chekiang serving in official capacities, and took along his ch'in. Everywhere he went he was well known. He wrote and published the *Yu-ku-chai-ch'in-p'u* in four volumes. He thoroughly comprehended the pitch system. He also had a detailed understanding of fingering methods, which as he said, for the most part was gained from his brother. Ch'in students often came from all over to study with him. One of his students, Hsu Hai-chiao (許海樵) of Chien-an (建安)[12] alone obtained his secret instructions. He was able to transmit this school of ch'in and it was very famous. Feng-chien was also skilled in astrology. He authored *Kao-ming ch'i-yao* (Fortune Telling Made Clear) in four volumes.[13]

From the *Yu-ku-chai* preface one can see that there was a fourteen-year age difference between the brothers. Feng-chieh was nineteen when he began to study with his brother, and thirty years or so later, in 1851, his brother passed away. Therefore we can state that Chu Feng-ming was born around 1788 and passed away in 1851. Chu Feng-chieh was born around 1802 and was still alive in 1864 as shown by his republication of the *Ch'un-ts'ao-t'ang-ch'in-p'u.*

In order to become a Senior Licentiate as the elder brother did, one had to pass the provincial examinations. From his portrait in the above passages, Feng-ming was a

---

[10]This style, not found elsewhere, means "second to Yung" and presumably is an allusion to the famous literatus-ch'in player Ts'ai Yung (A.D. 133-192), who was held in great esteem by ch'in musicians.
[11]In other words, he had passed the first level of examinations, unlike his younger brother.
[12]I am uncertain as to where this might be. It could be the circuit of that name in Fukien which included P'u-ch'eng county. However there are other places with that name.
[13]*P'u-ch'eng hsien-chih*, p. 545.

traditional scholar, reading the classics, playing the ch'in, reciting poetry, and pontificating Confucian maxims for the benefit of his younger brother.

Feng-chieh, however, did not study for the examinations. He probably made an official career by the purchase of offices, a common practice at the time. Possibly his positions in Chekiang prompted Van Gulik to state that Chu came originally from that province. However, an official was not allowed to serve in his native province. This fact plus the Fukien gazetteer statements (or lack of contrary statements) would indicate that Chu was originally from Fukien province and most likely from P'u-ch'eng.

Regarding ch'in making, Chu was perhaps an amateur. This was in fact the ideal: a scholar would garden, paint, compose poetry and in general putter around, and might even build a few ch'in, putting a suitable name and inscription on the back of the instrument.[14] As far as I know, there is evidence of only one ch'in made by him. It is mentioned in the *Chin-yu-ch'in-k'an* (今虞琴刊) handbook of 1940.[15] The ch'in was named "Shuang-chung" (霜鐘) (Frost Bell), and was owned by one Chu Hsiao of P'u-ch'eng, perhaps a descendent.

[14]A proper Confucian scholar would want to avoid getting his hands dirty with actual manual labor. Ideally he could find a local artisan who he could direct on how to make ch'in.
[15]*Chin-yu ch'in-k'an* (Shanghai: Chin-yu Lute Association, 1940), p. 282. This handbook has been reprinted in the *Ch'in-fu* collection of ch'in p'u.

Notes On The Translation

This is a translation of a technical manual, fairly dull reading, spiced with an occasional quotation from a classic work, an anecdote or two, and even a poem by the famous T'ang poet, Liu Tsung-yuan (榴宗元). These added bits were no doubt intended to provide the Chinese gentry audience with a little relief from prosaic technical material, and to endow the book with the proper grave Confucian tone. Most of the handbook is straight forward, but a few topics require comment.

There is an interesting emphasis on the lengths to which one should go in order to secure good wood for ch'in building.[16] Chu relates a story showing that he spent some time roaming the neighboring mountains looking for old wood. To put it simply, the attitude was, the older the wood, the better. Age is measured in centuries, and one must naturally spend a good deal of time in a rather Taoist fashion, rambling through the wilderness looking for ancient material.

The most curious facet is certainly the desire for wood that has been struck by lightning. Liu Tsung-yuan's "Thunder-ch'in" poem, in which he sings the praises of a ch'in cut from paulownia tree previously knocked down by lightning and burnt, shows this idea to date back at least to the T'ang era (A.D. 618-905).[17] Such a ch'in would no doubt have taken on a numinous aura gained from its element contact with T'ien, heaven. On the practical side, lightning might obviate the need for aging, as if the wood had been instantly kiln-dried.

I am not certain that wood several centuries old is absolutely necessary, although certainly some ancient ch'in (and violins) have a very nice sound. Modern instrument makers do use aged wood if they can, and some less good ch'in may be subjected to a blowtorch to "hasten" the aging process. There is no doubt that resin must be removed, naturally or otherwise. Most important, dry wood is less likely to warp. The preoccupation with great age probably comes from the traditional Chinese respect for hoary antiquity.

In 1975, John Thompson and I were living and studying Chinese and ch'in music in Taiwan. We engaged with a student of Mr. Sun named Yeh Shih-ch'ang to teach us a bit about the manufacture of ch'in. Yeh was a painter and ch'in student. Mr. Sun, true to the form of a Confucian gentleman, had convinced his student to make ch'in. John and I would take a bus to the far southern reaches of the Taipei municipal region, walk down to a river ferry, and cross over via a boatman, instantly going back centuries in time. We would walk through the countryside, past a temple, and arrive at Mr. Yeh's rented farmhouse, with a packed earth floor, full of ch'in, paintings, and a few animals in cages. He mostly taught us about applying lacquer as we felt that aspect of ch'in construction was the most difficult.

---

[16] See volume 2, chapter 2, "Distinguishing and Selecting Good Materials"
[17] Also in volume 2, chapter 2.

The techniques of lacquer application discussed in the manual are taken directly from the traditional lacquer industry itself. This may not be surprising, but some ch'in players seem unaware of this fact. Lacquer is derived from the lacquer tree, *Rhus vernicifera*, a deciduous tree, said to resemble the ash. It is native to the central and southern provinces of China. Trees of at least several years of age are tapped in the fashion of rubber trees, and sap is obtained. This sap is translucent, white-gray, but when exposed to air, it hardens and darkens. The sap is subjected to further processing, but the lacquer as sold today in Taiwan or Japan is ready to use and needs no processing, except for the addition of a suitable solvent, like turpentine.[18]

Lacquer has several interesting properties. The main chemical constituent is called **urushiol**, derived from the Japanese word for lacquer, *urushi*. This compound gives lacquer the quality that when subjected to warmth and humidity, it will harden in a relatively short time. Placing newly lacquer objects in a humid atmosphere to hasten drying is one technique used by lacquer workers. Another property is its toxicity.[19] Some individuals may be highly susceptible to it, especially if their skin should come into contact with it. Hive-like reactions are not uncommon. However it is reported that lacquer workers gradually lose their sensitivity.[20]

According to my experience in Taiwan, the lacquering process essentially involves two stages. First a base is made which consists of deer horn powder[21] (or possibly some form of finely ground stone) into which a spoonful of solvent is added. Then lacquer is added and mixed in until the mixture resembles a very thick chocolate pudding. When this mixture is so thick that it will hardly drip, it is troweled onto the ch'in. After the base dries we proceed to the second polishing stage. The lacquer is rubbed smooth with finer and finer oilstones. This process is laboriously repeated several times and then more coats of lacquer are added. From two to four coats may be put on. The lacquer in this case is mixed with a good grade of turpentine at roughly a fifty-fifty percentage. Finally some sort of polishing powder (deer horn powder again) can be used to affect a final brightness. Deer horn powder is used in Taiwan, but this step is often skipped.[22]

Yu-ku-chai, itself seems to have given short shrift to the actual process of putting on the lacquer-powder base and adding subsequent lacquer coats. From the text it would seem that only one coat for each process is necessary.

---

[18]These paragraphs dealing with lacquer are in part derived from personal experience and also from various books and articles. See, for example, Edward F. Strange, *Chinese Lacquer* (London: Ernest Benn Limited, 1926) pp. 1-9, or U.A. Casals, *Japanese Art Lacquers* (Tokyo: Sophia University, 1961) pp. 1-13.

[19] Urushiol is in the sap of poison oak, ivy, and sumac, and is what makes them toxic.

[20]Mr. Yeh told us that upon his first contact with lacquer he was very careless, and got lacquer all over his face and hands, consequently he blew up like a balloon. Later he became immune.

[21] See volume 2, chapter 6.

[22]Van Gulik, p. 193-4 points out that the main difference between this process and that used by the lacquer industry as a whole is that in the lacquer industry a cloth is usually worked into the base and lacquered over. This would have a damping effect on an instrument and was thus avoided. On p. 193 he states that the final thickness is 3-5 mm. From my experience, 5 mm. would be a little too thick.

With regard to the manufacture of silk strings, I have no personal experience. Possibly the *Yu-ku-chai* section in question may be lacking in details. Perhaps Chu Feng-chieh provided this part out of a feeling of duty and may himself not have known much about a difficult subject, confined to professional artisan families.

A glossary of the parts of the ch'in has been appended at the end of the text. In the text, certain technical terms are sometimes translated and sometimes left in Chinese. Chinese characters for all ch'in parts may be found in the glossary.

All the measurements remain in the traditional Chinese system and the terms are translated with their dictionary counterparts in English. Nowadays one Chinese foot or ch'ih (尺) is said to be roughly one third of a meter. This is not the measure of the author. In Volume 2, Section 3.3, Chu Feng-chieh states that a ch'in measures 3 feet 6 inches (or 36 Chinese inches total) from the nut to the start of the bridge. This is the length of a ch'in string on the surface of the ch'in. This measurement should at first be approached with caution. I would strongly urge anyone who desires to make a ch'in to first measure an existing ch'in and use it as a model, and take the measurements in the translation as advisory only. However it appears that they might not be that far off.

According to several ch'in I have measured, the length from nut to start of the bridge, is roughly a little more than 45 English inches or a ratio of about 1.25 English inches to Chu's Chinese inch. The Chinese foot has ten inches or ts'un (寸) (and the inches can be further subdivided into tenths, fen (分)). Keep in mind then, that the Chinese inch is bigger than the English inch, but there are only 10 of them per Chinese foot. The length of the Chinese foot has changed over time and has gradually become longer. The Ch'ing dynasty foot (the era of the handbook in question) was on the order of 32 cm; therefore the Chinese inch of that era would be about 3.2 cm, or about 1.25 English inches. And 1.25 inches times 36 is 45 inches thus Chu's measurement, at least for the length of a surface string, corresponds to the Ch'ing foot.

As for the dry weight system, sixteen ounces, or a liang (兩) make up one catty or chin (斤), which is approximately equal to 1.3 pounds or .59 kilograms. Ounces can be further divided into tenths, ch'ien (錢).

The original Chinese text is accompanied by commentary; that is, two columns of Chinese characters to one column of the original text. I have edited the commentary, as it is often redundant. The translated commentary is denoted by italicized and bracketed text; for example, *[This is commentary]*.

It should also be pointed out that the original translation was done in the 1970s and did not use the romanization known as *pinyin*, but was done in the day of the Wade-Giles romanization. As a result, the romanization has not been changed. However any new sections that could be of pedagogical use for ch'in students, may have both Wade-Giles and *pinyin*.

I should like to thank Mr. Sun Yu-chieh for his valuable help. Also I thank Professor Chen Shun-cheng of National Taiwan University and Ms. Hung Hsiou-fang of Taiwan for their help in translation, John Thompson for encouragement, and Dr. Frederic Lieberman for the editorial work he did in the 1970s.