Volume 2, Chapter 2: Distinguishing and Selecting Good Materials

"Music comes from the Yang"[1]. It is brought forth out of emptiness. Chuang-tzu[2] said: "Music comes from emptiness"[3]. When there is emptiness, then there is interchange. When there is interchange, then the harmonies of music issue forth.

As for the material from the t'ung (桐) tree[4], the core-center is empty and the grain is fine. This is why t'ung is of foremost importance in the making of ch'in. But there are more than one kind of t'ung. We have wu-t'ung (梧桐), pai-t'ung (白桐), ch'ing-t'ung (青桐), p'ao-t'ung (泡桐), i-t'ung (椅桐), and nan-t'ung (南桐)[5]. The ancients for the most part used wu-t'ung. Today people use p'ao-t'ung. P'ao-t'ung is the same as pai-t'ung. All can be used to make ch'in. Nevertheless wu-t'ung's grain is fine and the wood is hard. P'ao-t'ung's grain is fine too, but it is not hard. Nowadays people only look for lightness in the t'ung wood and they do not look for the hardness and lightness which is in the wu-t'ung. There is a proverb which says" "If it is new, it is t'ung wood; if it is old, it is copper[6]." This probably is in reference to the qualities of the wu-t'ung.

As for the t'ung materials, one must select sturdy lumber with the grain like silk thread; that is, fine and straight, but not crooked. This then is good material. Also if one gives it a pinch, and the finger does not go in very far, this is even better. If old materials can be obtained that have been aged considerably so that the sap has all gone out, and a purple color has penetrated within, plus the wood has a fine and straight grain, this then would be very good. If one chops down fresh t'ung, it is white on the inside. After a long time, it becomes yellow. Eventually it will become purple. After several hundred years, it returns to the original state and the color again becomes white. The wood becomes light and porous and is clearly different from ordinary wood. Although it is thick, the sound is deep and full, clear and bright and will not be blocked. This is truly marvelous quality.

As for the material that should be used, it should be from younger branches; that is, branches that are close to the top of the trunk. If the t'ung is not old, then its young branches will certainly not be big. Choose wood far away from the ground, with the top

[1] See Li-chi (Book of Rites), 11/5.
[2] Chuang-tzu, the Taoist philosopher, who lived about the third century, B.C.
[3] *Chuang-tzu* (the book), 4/2/13.
[4] T'ung; i.e., paulownia, but we will use Chinese for tree names.
[5] *Chung-wen ta tzu-tien* (中文大詞典) (1962, Taibei; China Academy), p. 7144 gives paulownia tomentosa for t'ung. The tree (or genus) is described as being deciduous, thirty feet or so tall, large leafed, with close-veined and light wood. W'u-t'ung on p. 7190 is called firmiana platanifolia. The description is similar to that of t'ung. On p. 190 it is stated that ch'ing-t'ung is the Japanese name for w'u-t'ung. Hui-lin Li in *Woody Flora of Taiwan* (Narbeth, Pennsylvania" Livingston Publication company, 1963) p. 556 under Firmiana simplex (w'u-t'ung) gives sterculia platanifolia, firmiana platanifolia and hisbicus simplex as previously used names. *Chung-wen ta tzu-tien*, p. 8055 gives i't-ung, and pai-t'ung as variants for p'ao-t'ung. In summary these are two genera, firmiana and paulownia. The various names reflect regional differences in species.
[6] This is a pun as copper is also pronounced "t'ung".

blown by wind and dried by sun. It should be moistened by frost and dew with plenty of pure air. Furthermore it is good if the material is facing southeast, (because) "the Great Brightness (the sun) is born in the east".[7] The *Book of Odes*[8] states: "The w'u-t'ung grows there on those slopes and faces the sun".[9] The Li (離) (trigram)[10] is the trigram for the south. *[The east slope of a mountain is said to face the sun.]* It stands for fire and the sun. It resides in wood. It is classified under lofty and dry. It belongs to the southeast. This direction is just right for receiving the benefits of solar energy. As music comes from the Yang, should not the southeast be held in esteem?

The Yang wood is in the t'ung wood that faces in the Yang direction, and is in the sunshine. The Yin portion is the part that faces away from the Yang and is not in the sunshine. Try taking some new or old t'ung and pare it off all around. Make a mark on it, and then put it in water. Let it roll and turn until still. The Yang part will be on top with the Yin on bottom.[11] Yang material is unclear in the morning, but it is clear in the evening. On clear days it is muddied, but on rainy days it is clear. Yin material is the opposite.[12] Thus its relationship with nature is intimate and there is nothing else like it.

T'ung will at first have a lot of sap, especially the younger branches. Sometimes it will stain your clothing. Its color is like lacquer, and it is difficult to wash clean. So as for the sap, it is easy to dry out the wood, but difficult to get the sap out. If one cannot get the sap out, the sounds will be muddy and obstructed, and will not be clear and bright. To remove the sap, take a piece of t'ung wood that is over an inch thick. Slightly round its face, and dig out some of the wood beneath so that its length and width approximate the form of a ch'in. Then put it in a paper pulp pool. *[In the making of paper, bamboo is immersed in a lime pool.[13]]* Let it soak for a couple of months so that the lime's active ingredient can bleach out the sap. Afterwards put it in some clean flowing water or under a waterfall to wash out the lime for approximately three to four months. Then take it out and hang it up in a hot wind or under the bright sun. *[It is absolutely necessary to avoid rainy places.]* It does not matter if wind or sun is used, just as long as the wood gets very dry. Then daily strike the wood in order to test it. Wait until it has a bell like sound and then make the instrument. When it is finished, even if it does not have the excellence of old material, there is still some beauty in the new material.

One kind of older useable material is called "decayed choppings". Sometimes the

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7 Li-chi, 10/19.
8 A book of poetry and one of the Confucian classics.
9 Book of Odes, 252.
10 Book of Changes, trigram 30.
11 According to a University of Washington forestry professor, there is no substance to this claim in terms of fresh material from a tree. However a board or long cut log exposed to sunlight might react this way.
12 Weather change in instruments is probably a factor behind this claim, however there is undoubtedly a reflection of Yin-Yang philosophy here which may or may not be without basis.
13 Sung Yin-Hsing, T'ien-Kung K'ai-Wu: "Chinese Technology in the Seventeenth Century", translated E-tu Zen Sun and Shiou-chuan Sun (Pennsylvania: Pennslvania State University Press, 1966), p. 224 states that in the paper making process, bamboo was put into a milk of lime solution (a pulping reagent) to make pulp.

material is dug up from beneath crumbled walls or building ruins. Another possibility occurs due to the violent weathering action of wind and mountain. One can find material on high cliffs, or in deep ravines, or even in the earth, if it has been there for a long time so that the sap has disappeared. Take unrotted materials and dry them in the sun or wind, then make ch'in.

As for good quality in old materials, there can be nothing that exceeds these kinds. But as for "decayed choppings", one cannot be certain that it will be t'ung wood. Some other kinds of wood are also all right. The wood is useable as long as it is light and porous, crisp and smooth. One may also find, mu-yu (木魚) (wooden fish)[14]; that is, wooden drums. In temples and monasteries, also in the tea yards up in the mountains, there are many things made out of t'ung wood. They carve out the center and create an instrument shaped like a fish, striking it daily in order to summon people together. Next there are drum casings and bell clappers. They are influenced daily by the vibrations of metal and skin, so naturally they belong to the category of good materials. Nevertheless the drum casing falls short in terms of thinness, and the clapper due to shortness. Also these items do not last for long, so the sap will not have been cleaned out. Kitchen utensils are steamed and fired, and through the power of water, the sap is easily removed, still this kind of material is thin.

In ancient times, coffins were made of t'ung. The *Tso-chuan*[15] in saying: "The t'ung coffin is three inches (thick)"[16], is referring to this. Later generations for the most part used fir. If the wood has been around for a couple of hundred years, then fir can be used. But music comes from the Yang, and this kind of extremely inauspicious Yin[17] material should certainly not be used.

As for beams, pillars, and router rafters, the ancients used t'ung for some of these. But it has to have survived for a couple of hundred years. If at an old monastery or temple on a high precipice or cliff, or by a waterfall, or stream shore in high, spacious and quiet regions, absolutely cut off from the cacophony of the everyday world, there one can find good material for the ch'in. Naturally it will have a special sound.

Formerly the King of Wu-Yueh (吳越) [18], Ch'ien Chung-i (錢忠懿)[19], was skilled at playing the ch'in. He sent someone off to look for good material. His servant went to T'ien-tai (天台)[20] staying overnight in a mountain monastery. During the night he heard a waterfall outside. Upon arising in the morning, he glanced out where the water splashed down upon the rocks. Straight across from him was a pillar that caught the sun. He thought to himself: "If it is t'ung wood, it will certainly make good ch'in material."

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[14] A "wooden fish" is a drum that is shaped like a skull, made from wood, and used by monks in their liturgical chants.
[15] An early historical text, one of the Confucian classics.
[16] *Tso-chuan*. See HY concordance, 468/Ai 2/7 Tso.
[17] Yin stands for darkness, death, etc., and so coffin material would be inappropriate for the ch'in.
[18] This was during the late Five Dynasties period (tenth century). The state was located in Kiangsu-Chekiang, with its capital at Hangchow.
[19] Ch'ien Chung-i (Fl. 960), Chung-i was his posthumous name.
[20] The famous Buddhist monastic center, located at Mt. T'ien-t'ai in Chekiang province.

He took a knife and made a cut from the wood. It was indeed t'ung. Giving some money to the monks to replace the pillar, he took material from the Yang side, enough for two ch'in. The servant then rode speedily back to report to the King. After a year, the ch'in were finished and were presented to Chung-i. One was called Hsi-fan (洗凡) and the other was known as Ch'ing-chueh (清絕).[21] These ch'in were rare treasures, and Ch'ien later presented them to Emperor Ta'i Tsung (太宗).[22] The two ch'in were kept in the Imperial storehouses. When the dynasty moved south[23], the ch'in were sent to Cha-chuan (霅川)[24] and later to Yeh Meng-te (葉夢得)[25] (25). This kind of ancient pillar, needless to say, is not easily located.

The best kind of t'ung is the kind that lives on cliffs. It is even better if it has been naturally desiccated. If it has been hit by lightning and burned, this kind is especially hard to get. Because lightning is not an ordinary fire, every time that such materials burn, it is necessary to wait for the fire to naturally die out, as even if one puts water on it, one still cannot extinguish the fire. So how likely then that sap could still be in amongst the ashes of wet materials? This is exceptional material for ch'in and is seldom found. If t'ung wood has been through a lightning fire, it is exceptional. It does not strictly have to be wu-t'ung wood. Even fir under such circumstances is good. Other kinds of hardwood, even if they have undergone such treatment are not useable. However they can be used for making the yueh-shan (岳山) (bridge), or lung-yin (龍齦) (nut) and are excellent there.

"In Praise of the Thunder Ch'in" (pi-li ch'in-tsan 霹靂琴讚)[26] with preface.

Liu Tsung-yuan (柳宗元)[27]

The Thunder Ch'in was created from withered t'ung left from a storm in Ling-ling (零陵)[28], west of the Hsiang (湘) river. In an earlier time the tree had grown over some rocks. It was said that a flood dragon hid in a cave underneath the tree. One evening there was a thunderstorm. The tree was struck and burned until dawn. What remained fell with a solid thunk into the road. After the storm, local people cut wood for firewood. Ch'ao, a Taoist, heard the tale and obtained enough wood for three ch'in. There is no wood better than t'ung for ch'in, and there is nothing better than t'ung that has grown over

[21] Hsi-fan means "washing away the defilements of the world". Ch'ing-chieh could be said to mean "pure paragon". Both of these names reflect the origin of the particular ch'in; that is, having a Buddhist flavor and reflecting the landscape - mountains, waterfalls, clear pools - from which they came.
[22] The second Sung emperor. He reigned from 976-997 A.D.
[23] In A.D. 1135, the Sung fled south across the Yangtse river to Hangchow when their old capital, Kaifeng, was captured by northern invaders.
[24] This might be one Ch'ien Hsuan (錢選), a late Sung poet.
[25] There were at least two men with such a name who could conceivably have obtained the ch'in. One was a famous poet of the Sung era who lived in the Wu area.
[26] A "tsan" is a short poem written in praise of some subject.
[27] Liu Tsung-yuan (A.D. 773-819) was a famous poet and prose writer of the late T'ang period. Note that the preface is by Liu Tsung-yuan, and was not written by the author of the *Yu-gu-chai ch-in-p'u*.
[28] This was a city in Hunan province.

stone. It is excellent because it was left from the fire. It is unusual because of thunder accompanying the fire. So these ch'in were both excellent and unusual. These qualities merge together into beauty and they may not appear again in the empire. But for this Taoist, such early beauty would have been lost. To record this event, I have engraved a eulogy to the left and right of the sound holes. To provide a record, I composed this preface.

The poem:

"On the banks of the Hsiang,
perilous, lofty above the rock.
Dragon magic hidden below,
uncanny thunder fire,
excellent, unworldly
qualities merged in beauty.
Of Chao's achievement
I sing in praise."

The underside of the ch'in should be made with tzu (梓)[29]. The surface of the ch'in is for producing sound and the bottom is for sound retention. If the wood is not sturdy, then the sound will scatter and will not be clear. One should also obtain old tzu wood. Cut it open and dig a fingernail into it. If it does not penetrate, then the wood is right. The wood of the lacquer tree (ch'i 漆)[30] tree can also be used for making the bottom. However here the sap should be congealed. It should still be inside and have not passed out through ageing. If one also used wu-t'ung for the bottom, this would be called a pure Yang ch'in. This kind of ch'in in the evening and when it is rainy is not very deep in its sound. Also the sound cannot be transmitted very far, probably because the sound is insubstantial.

All ch'in material has to be changed, but changed and decayed are not the same. Decayed means rotten; that is, if one flicks it, it turns to dust. Changed means that the basic nature of the wood is still the same, but the sap is gone. So if one raises the wood, it feels light. If one digs his fingernails into it, they do not penetrate far. If one uses something heavy and strikes it, or if it slips and falls, it may be fragile and break.

As long as I have been studying the ch'in, I have been out searching for good wood. Up in a ravine in the mountain crags of Wu-i (武夷)[31] *[This place is in the Ch'ung-an* (崇安) *district in Fukien]* there are some boards from a "rainbow bridge" .[32] The wood has

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[29] Catalpa ovata. Cf. *Chung-wen ta tzu-tien*, p. 7182.
[30] Rhus vernicifera. Cf. Bernard Read, *Chinese Medical Plants* (Peking: The French Bookstore, 1936), p. 91.
[31] Text gives (C) which might be a variant of (C). The Wu-I mountains border Fukien and Kiangsi. There is also a Mt. Wu-i in the given area.
[32] "Rainbow bridge" is a term for timber cantilever bridges. Many such bridges were built in Fukien in the Sung dynasty. See Joseph Needham, *Science and Civilization in China* (Cambridge: Cambridge University Press, 1971) IV:3, p. 158 and p. 164.

survived the ravages of time. The local history records that the Lord of Wu-i, returned as an immortal to the old district and entertained his neighbors. So he created a "rainbow bridge" for the crowd to use on their way to his fairy palace. With the end of the festivities the planks of the bridge scattered and flew away, sticking into various crags and caves. It would seem that the wood is still there. But the crags soar up around a thousand feet. The planks were stuck up in the middle of the crags and crevices with no access. One could see that eagles made their nests there. When the wind blew, the boards would move but not fall. Further they were not all bridge planks. There were fishing poles and other things, all of which were in plain sight. Perhaps the ancient local history is not believable. My brother Chiu-chai often remarked upon this situation. He thought that the high waters of a great flood had floated and lifted the boards to the heights, leaving them perched there when the water receded. There they remained since ancient times and because the mysterious breath of heaven and earth acted upon them, they did not rot. If this material was used for ch'in construction, the tones would be lucid and extraordinary.

In the chia-hsu year of the Chia-ch'ing period (1814), my brother made a trip to observe the scenery (of that locale). He lodged at the Tien-you-yan monastery. There he met a Taoist priest who recounted the words of his teacher. He said that during the Ch'ien-lung era (1736-1795), there had come an order to try to obtain some of those planks. Workmen were assembled and scaffolding was erected but the planks will still too high. Someone tied a cord around an arrow and shot, hitting one of the planks. The plank was pulled down, but suddenly it plummeted down into the underbrush. The area was searched for days but nothing was found. A second attempt at shooting ensued but straight away a storm boiled up and the scaffolding began to shake as if it might soon collapse. The enterprise was abandoned.

At the time his teacher had gone out and looked down from the heights in front of the monastery. He waited until the guards were asleep and then crept down and obtained some of the wood. After a few years he was given duties elsewhere and ordered some workmen to make three statues of deities. One was given to a Cantonese tea merchant. Another was taken secretly to the monastery. Nowadays one remained, kept as a treasure. It was brought out for my brother's examination. The wood was light and smooth with a fine texture and a clear fragrance. Apparently the wood chips that remained could cure rheumatism. This excellent material was used as a sacred Buddha image, losing its (possible) function and beauty (as a ch'in). An order given with this result! Hard Luck!

In the wu-tzu year of the Tao-kuang period (1828), the magistrate of our city, Sun Ch'a-yun (孫茶雲) of Wu-lin (武林), returned from a visit to the prefecture. He related that someone had been caught in the theft of some of the "rainbow bridge" lumber, a "pontoon" (or boat?) made of the ancient wood. We brothers requested by letter to buy the wood offering a considerable sum. Further it was stated that if two ch'in could be made, then one would be presented to the authorities. Upon the reply we discovered that the pontoon had been fashioned from one tree; that is, the structure used for pontoons in ancient times. It had already been cut up into ten pieces and presented to the prefecture office. We brothers could not restrain our disappointment and vexation. For many days we had considered this excellent material to be more difficult to find than that obtained by Ts'ai Yung (蔡邕)[33], and in the end it was hacked to pieces by some petty officials. This is even more outrageous than the Taoist carving out divinities.

A friend who was on the scene related to us that the pontoon was full of grain. The unhusked rice was all black. When steeped in hot water, each grain gave off an inky color. The aroma was unsullied and different, and the rice was certainly old. It had not gone bad. If it not obtained the essence of heaven and earth, how could it have become like this?

Mr. Liu Tung-yuan (劉東原) a friend, told of Ma-tsui (horse mouth) precipice in Hunan's Ch'en-chou (辰州) prefecture. At that place there are many sheer rock walls rising precipitously. There is also a rather precarious path. Halfway up one could find a stone room with a door, a cupboard, and rounded beams, all having survived from the past. This material could be made into ch'in and se (瑟)[34], but it would be hard to obtain. One could probably venture that from ancient times, exceptional materials existing in high places have been hard to obtain for those with musical tastes. Sometimes that material would exist but go unrecognized. Other times it would be recognized but go unused or be used incorrectly.

Certainly material from Lung-men (dragon gate) (龍門)[35] and from the south side of Mount I (嶧)[36] would be suitable for music played in the Imperial ancestral temple and audience hall. These materials are rare. Instead of using it to fulfill the desires of mean men, would it not be better to worship it and obtain the sense of communion brought about through incense and the burning of paper money?

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[33] The famous Han dynasty ch'in player. The story goes that Ts'ai Yung was passing a fire and from the crackle of the wood (t'ung, of course) determined that good ch'in material was going to waste. He got the wood from the fire and made a ch'in called Chiao-wei (焦尾), "Scorched Tail", as the tip had been blackened in the fire. See Van Gulik, *The Lore of the Lute*, pp. 101-102.
[34] The se was a large zither with many strings, resembling the more modern cheng (箏) zither which has fewer strings. These kinds of zither, unlike the ch'in, possess a movable bridge per string. The bridge fixes the pitch for each string.
[35] This is probably the gorge in Shanhsi.
[36] Mt. I is a mountain in Shandung province. According to tradition the mythical sage-emperor Fu Hsi created the ch'in with t'ung taken from the south side of this mountain.