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DEMYSTIFYING THE CRAFT PRODUCTION: A CASE STUDY OF THE CRAFT-MADE GUITAR INDUSTRY IN THE GLOBAL ECONOMY

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ABSTRACT

Demystifying the Craft Production: A Case Study of the Craft-Made Guitar Industry in the Global Economy

Yi-Chen Liu

Despite the rise of social studies to address craft economy or production in modern society, how the value can be added to a craft-made product is poorly explained. By exploring the global context of the guitar-making industry in the 1960s and interviewing guitar makers in four different countries, in this dissertation, I argue that the rise of the craft-made guitar industry since the 1980s resulted from the invented tradition of "vintage" and the dependence on advanced technology. Additionally, by exploring various guitar builders' life stories, labor processes, and business networks, I create a concept, the ladder towards luthiers, to describe how an inexperienced apprentice may become an independent luthier in a hierarchical structure in the industry. Furthermore, I argue that the traditional definition of craft overvalues male luthiers' role in adding value to a craft-made guitar and overlooks female workers' contributions in the craft industry. In order to highlight different actors' contributions in the craft industry, we need a new definition of craft to help consumers understand that the value of a craft product is also made in a social process rather than by an independent luthier. Finally, this study also sheds light on the relationship between craft production and mass production and figures out that the rise of craft production could reflect a reskilling process of industrial capitalism rather than the opposite of the deskilled mass production.

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Chapter One Why Are Craft-made Guitars So Expensive?

Close your eyes, and try to feel the sound of a 2005 Fender Stratocaster built by John Cruz—a famous "master builder" at Fender Custom Shop—and then move on to hear another 2005 Fender Stratocaster made by local workers at Fender Mexico's factory. Can you identify any minute differences between these two Stratocasters?

Maybe you will be shocked when you learn that these tiny differences, if there are any, create a considerable price difference. John Cruz's Stratocaster price, which is at least 7,000 USD, is 23 times more expensive than the same model guitar, which costs around 300 USD, that is built by the assemblers at the Mexico Fender Factory. How can we explain this value difference?

Economists, especially neoclassical economists, are more likely to emphasize how the free market plays an important role in determining a commodity's price. Through rational negotiations between sellers and buyers in the market, both sides are supposed to have equal chances to make offers and get all the required information to reach a consensus on the commodity's final price. For a consumer, the price of a commodity could reflect the utility of this commodity to him/her. The higher utility this commodity will have to the consumer, the higher its value. However, the value of a commodity may not be consistent and will change under different conditions. Therefore, economists develop many conceptual tools to depict how the value of a commodity could be changed. For example, marginal utility, a prevalent concept in economics,

describes how the value of a commodity could be changed based on whether this commodity may offer consistent utility for its consumer when used under different conditions.

Unlike economists' explanations, sociologists are more likely to emphasize worker's participation than free market or rational choices. Surplus value, the difference between a worker's wage and the market price of the commodity made by this worker, explains how workers create a commodity's value. Therefore, extracting the surplus value from workers becomes the most crucial issue for all capitalists. The more surplus value a capitalist can extract from his/her hired workers, the faster he/she can accumulate the revenues. From this perspective, sociologists offer a different theoretical framework to understand the creation of a commodity's value from economists' perspective of the free market. Compared to economists, sociologists are more willing to highlight workers' collective contribution in making a commodity's value and to explore how production is always a social activity in which various people collectively create a value for a product.

Traditionally, craftwork, despite being different from modern mass-production factories, remains a social activity highly dependent on the subcontracting networks in which a master, or a pit boss, organizes his workers to make a product under his supervision. Finally, this master will "sell their collective products to the employer, making a profit from the difference between the amount received from the employer and the amount paid to workers." (Tilly and Tilly 1998:27). From this perspective, craftwork does not imply that a solitary artisan completes a project from beginning to

end. In contrast, his hired workers or apprentices also play an essential role in making a profit for their master.

However, John Cruz's signature seems to challenge this traditional definition of craft and its social meaning. His expensive craft-made guitar leads to the question of whether craft-oriented manufacturing remains a social activity. The guitar builder's signature printed on the back of the headstock seems solid evidence to prove that John Cruz individually creates the total value of this guitar he made. Regardless of whether anyone participates in the labor process, John Cruz's signature is the only reason to attract professional players and guitar collectors who are willing to buy his Stratocaster rather than another Stratocaster made by Mexican workers. If so, how can we advocate that modern craft-made manufacturing remains a social activity?

We may analyze these above questions through three perspectives: (1) the evolution of the craft industry; (2) the skill formation of the craft-made industry; and (3) the difference between skill and craft. The craftwork described by Tilly and Tilly may precisely represent the labor process of craft-made production in the traditional association of artisans and merchants in feudal society. However, can it explain the rise of the Fender Custom Shop in 1987 and other craft-oriented guitar makers? Without exploring the evolution of the craft-made guitar industry, especially the relationship between the craft-made mode of production and the mass-production system, we cannot correctly determine how the modern craft-made industry advanced historically.

We also need to analyze the skill formation of the craft-made industry. Ostensibly, John Cruz makes the entire value of his guitar without receiving any help from others.

However, how do we explain how he can be a superstar in the industry? How does he learn craft guitar skills? Analyzing how a craft artisan has gradually learned all the craft skills and reached the position of a master builder will remind us that craft production is always a social activity and not a master builder's monolog.

Finally, if both mass-production and craft-production are a social activity in which various people participate in the labor process, it is important to consider the fundamental difference between skill and craft, especially a deskilled worker in a guitar factory and a craft artisan in a boutique shop. Furthermore, we may even critically question whether the difference between skill and craft is just an illusion and whether this difference is constructed to legitimatize the supremacy of craft in the guitar-making industry.

All the above questions highlight the central puzzle in this dissertation: how the value of a craft-made commodity is made and added. These three above dimensions provide an analytical framework to understand how craft becomes a profitable labor power in the specific context of industrial revolution. Then, exploring how guitar makers learn the guitar craft may determine how the craft-made guitar industry remains a social activity. Finally, highlighting the similarities and differences between skill and craft will critically reflect why craft is profitable and how de-skilled workers still play an essential role in the craft industry.

To explore the changing relationship between industrialization and the value of a craft-made commodity in different historical stages and geographical scales, this dissertation selects the guitar-making industry as a research case because it has specific

advantages in the five following dimensions: (1) mode of production, (2) the particular characteristics of its labor power, (3) changing the reproduction of labor power, (4) internationalization and re-localization of production, and (5) the characteristics of craftwork.

First, guitar builders in different epochs were likely to adopt other modes of production that could best fit the guitars they built, rather than promote efficiency. This return of the craft could offer us a chance to challenge the traditional wisdom of the political economy's evolutional approach to the mode of production (Marx 1978). For example, before the birth of the electric guitar, guitar builders—almost all small businesses—built acoustic guitars with the craft-oriented production mode. After moving on to the epoch of electric guitars in the mid-twentieth century, the mode of production adopted in the electric guitar industry has been gradually transferred to the deskilled production mode, such as adopting the assembly line and mass production. Then, in the mid-80s, regardless of what type of guitar industry, once again, both acoustic and electric guitars experienced a regeneration of the craft-oriented mode of production as well as an even more complicated combination between craft-made and advanced technologies, such as automation production, computer numerical control (CNC), laser cutting, and 3D-printing. To explore this changing process of industrialization, the guitar industry offers us a perfect example to uncover how the industrial transformation could be possible in terms of the mode of production.

Second, the rise of the craft-oriented guitar industry also allows us to critically deliberate the characteristics of labor power in terms of culture, which is different from

political economy, focusing on the labor time used to produce commodities. Kathryn Dudley, for example, determined that craft-oriented guitar artisans collectively shared a cultural value for the gift, which means "a sphere of activity guided by values that privilege artistic exploration over monetary profit, direct connection with raw materials over labor-saving tools, and the pleasure of creative exchange over capital accumulation" (Dudley 2104:116). This cultural trait shared in the community of craft builders, despite their different evaluation of technology—from the most ardent supporter of hand-made products to the heaviest user of advanced technology—highlights that a difference between a mass production factory worker and an artisan is the former's lack of the "gift." This could imply that a factory worker is only supposed to sell their labor time to his/her employer to produce standardized guitars, without having the specific ability to loosen the shackles of both capitalism and modern technology.

In contrast, artisans, who are different from factory workers who are unable to build guitars independently with a complete knowledge system, know how to embody their original plan of an "ideal guitar" from scratch through their physical and mental labor. In Dudley's analysis, this specific capacity of a "gifted labor to embody an ideal guitar, crystallizes every artisan's authenticity differently. Therefore, Dudley also argues that "a mass-produced guitar is summoned into existence by a market culture that demands interchangeability; the artisanal guitar is called forth by a desire for singularity" (Ibid 2014:137). Compared to other industries, the guitar industry, which has experienced several transformations—from the craft-built focus in the early years,

mass production in the 1950s, and then the regeneration of the craft-oriented guitar industry in the 1980s—could be an ideal case to explore the changing characteristics of craft-oriented labor power in terms of its singularity and authenticity.

Third, except for labor power characteristics, the reproduction of the craft-oriented labor power will be another eye-catching issue. If the labor power of an artisan—again, different from a mass production factory worker's labor power, which is only degraded with labor time—is a "God-given gift" (Ibid 2014:138), we may further question whether this "gift" can be learned in a systematic schooling institute. If not, does it mean that the traditional apprenticeship could be the only strategy to train the next generation of artisans? In Dudley's study, the reproduction of labor power in the craft-oriented mode of production could be completed by transmitting their cultural values rather than practical skills. If the reproduction of the craft-oriented labor power, the so-called "gift," means the transmission of what an experienced master knows to the next generations—including how to create every builder's sense of beauty, format the specific skills and knowledge system, and inspire young luthiers to develop their different and exclusive singularity—we may easily understand why Dudley emphasizes that "the senses of instruction" in luthiers' community are "staging grounds for artisanal values and the production of a culturally distinctive sense of self" (Ibid 2014:151). Furthermore, this specific emphasis on the social connections through luthier's instructions results in another unique viewpoint of how to make artisanal production different from mass production. So, lutherie's instruction may "defy the commodifying logic of postindustrial capitalism" (Ibid 2014:192).

Fourth, different from the perspective of anthropology, which stresses the artisanal community's cultural values and their potential alternative against the capitalist logic of the commodification of labor, both economic sociology and global sociology offer another perspective to explore how the craft-oriented mode of production can still survive in the capitalist society on a global scale. For example, the rise of the flexible specification highlights the fact that craft-based and small-sized firms are more likely to swiftly offer new commodities to fulfill the changing needs in the market than do Taylorism-oriented mass production firms who are unable to change their production strategy and assembly lines to adapt to the changing market (Pioreand Sabel 1984).

Despite compelling reasons to explain the industrialization path in countries with apprenticeship and craft-oriented industry, including West Germany and Japan, the flexible specification fails to explain the rise of the craft-oriented guitar industry in the US since the mid-1980s, especially during this period when most manufacturing sectors were facing the internationalization of production and the spread of their products around the world (Sassen 1988; Korzeniewicz 1994). The rise of the craft-oriented guitar industry during the mid-80s gives us an excellent chance to explore the relationship between the rise of the craft industry in a local community and its global dispersion of production around the world. For example, how can we determine the different implications of establishing these three Fender sectors in the 1980s: (1) Fender Custom Shop in California, (2) Fender Japan, and (3) Fender Mexico? In the acoustic guitar production in Santa Cruz, we may also observe that the rise of acoustic guitar manufacturers also happened in the 80s. The guitar industry may offer us a different

case to analyze the globalization of production.

Finally, after exploring the global mobility of the craft guitar industry and those craft workers' experiences, this dissertation will try to explain how the commodity value of a boutique guitar is made and added and to analyze the labor conditions of craft workers. Furthermore, to clearly define the research subjects, I will focus on only acoustic and electric guitar production. Other guitar family members will be excluded, such as the pedal steel guitar, ukulele, mandolin, banjo, and so on.

This dissertation aims to answer how this global mobility of a craft-based industry could happen under global capitalism, especially how this global mobility matters to guitar builders in the US, Japan, Taiwan, and China. Although Piore and Sabel used the concept of "flexible specialization" to address how the craft-based industry might engage in a capitalist society, especially in Japan, North Italy, France, and West Germany, the analysis of the flexible specialization in the US only focused on some capital-intensive industries, especially the car industry, and these included case studies on GM and Chrysler (Piore and Sabel 1984). However, by studying the guitar-making industry, we may learn how globalization matters to a labor-intensive industry and make it become a craft-oriented industry. To analyze the impact of globalization, I interviewed guitar builders and collected comparative data in Taiwan, China, Japan, and the United States. By depicting the global networks among these four countries, we may answer how the global mobility of craft skills matters to the entire guitar-making industry.

Another purpose of this research is to honor all hard-working people by writing

working people's biographies from the political economy perspective. In the writing process, I will try to record how they strive to survive in this uncertain epoch in which almost everything is involved in global mobility, including the capital, production, consumption, and even craft skill. Differing from most scholars who overemphasize the role that financial capital and transnational corporations (TNCs) play in economic sociology, I will focus on a specific artisan's life experiences and try to say a different story of globalization based on people's lives, rather than abstract concepts constructed through only observing the experiences of TNCs.

This dissertation is organized around explaining and interpreting the rise of the craft-oriented guitar industry between the mid-1980s and the present. Chapter One will address the research questions and explain why I chose the guitar industry as my research subject. Chapter Two will provide a brief literature review in which I will separately review the strengths and weaknesses of the political economy and cultural studies on the craft-oriented mode of production and indicate the possible contribution of my research to sociology. Chapter Three describes two research methods included in this study. The first one reviews two worldwide guitar companies' histories. The second part is related to small guitar builders' ethnographical writing in Japan, Taiwan, and China.

Chapter Four is the first part of the empirical data to analyze these two guitar companies. By retrospectively reviewing the histories of both Fender Musical Instruments Corporation (Fender) and Taylor Guitars (Taylor), I will explore two different models of craft-oriented production: the invention of tradition and the

invention against tradition. Reading these two international guitar companies' stories will help us understand how the rise of the craft-made guitar industry in the 80s, including both electric guitars and acoustic guitars, is related to the changing structure of the whole guitar-making industry based on the mass-production before the 70s.

Chapters Five to Night provide the second part of the empirical data, in which I will separately analyze craft-oriented guitar builders' various experiences in the US, Japan, Taiwan, and China. Chapter Five will focus on a case study in Hippie Town, California. This case study focuses on how the career mobility from an apprentice to an independent shop owner reflects a hierarchical structure: the ladder towards luthier. In Chapter Six, by introducing two different models, Hamamatsu and Nagano, I will determine how Japan has gradually evolved its craft-guitar industry in terms of the ladder towards luthier. Chapter Seven focuses on how guitar makers in Taiwan can learn guitar craft skills and create their business networks under the global economy. In Chapter Eight, we will learn how guitar makers' destinies are highly related to changing structure of social economy, especially the Chinese Economic Reform since the 1990s.

After learning how male artisans may become a "luthier" by climbing up the ladder, we may understand why craft-made production is not only a social activity but also a hierarchical organization, rather than a flat network described in the concept of flexible specialization. In Chapter Nine, we will further discuss how deskilled workers also play an important role in the craft industry. By learning stories of female workers, we may critically question why the traditional definition of the craft may undervalue

those so-called “deskilled” workers’ contribution to the guitar industry.

Chapter Ten is the conclusion, in which I will discuss why neither the political economy nor the cultural approach can explain the rise of the craft-oriented mode of production in the neoliberal globalization epoch. Besides, I will answer how the craft-oriented mode of production can create value through the invention of tradition, the use of advanced technology, the specific networking model based upon the ladder towards luthier, and the labor regime of craftsmanship.

The Definition of Craft

Marx’s original definition of labor power is “the aggregate of those mental and physical capacities existing in the physical form, the living personality, of a human being, capacities which he sets in motion whenever he produces a use-value of any kind” (Marx 1976:270). This capacity can be used to transform nature. For example, by using labor power, we can make a table by changing the physical form of wood. Indeed, Marx’s definition of labor power is also similar to the sociological definition of work, which means “an activity which alters nature” (Grint 2005:7).

In this study, the definition of craft is a willingness to do good work for the sake of people and having a holistic command and dexterity of skill in various social relations of production. This definition can highlight these three different aspects: the meaning of labor power, the market value of craft, and the social relations of production. First, the purpose of craft is not to sell a worker’s labor power in the labor market.

Instead, an artisan will devote themselves to serving customers directly (Sennett, 2008). A mass production factory focuses on the exchange value of labor power in the labor market; a craft workshop emphasizes the use-value for satisfying people. Second, different from a semiskilled worker in a mass production factory under "scientific management" (Braverman, 1998), a craft artisan must be able to complete all the work independently. Finally, craft-based production is focused on more diverse social relationships of production than industrial capitalism, including apprenticeship (Thelen 2004; Dudley 2014), subcontracting arrangements (Tilly and Tilly 1998), and other different flexible forms of independent contract.

In the next chapter, I will briefly review some social theories related to the craft-oriented production mode, including political economy, economic sociology, and cultural anthropology. I will also determine their weaknesses, which make them fail to explain the rise of the craft industry in this neoliberal global society.

Chapter Two How Can a Luthier Create a Value for a Guitar? The Explanations from Political-Economic and Cultural Perspectives

This chapter will briefly provide a literature review of social theories related to how the craft-oriented mode of production can add value to a commodity, especially a luxury one. This literature review will be divided into two parts: (1)the political economy of labor studies and (2) the rise of luxury goods and their cultural impacts. In conclusion, I will determine how each of them may explain the increase in the craft guitar industry in some aspects and how it fails in others.

Political Economy of Labor Studies

The theoretical approach of the political economy, especially the Marxist approach, emphasizes how the labor force creates the value of a commodity. In this part, I will review three different political economy approaches—Marxists, institutionalist, and global sociological perspectives—to clarify how craft, as a specific skill and labor power, may create the value of a commodity.

Marxists Political Economy: The Labor Process and the Valorization of Value

In the history of the political economy, Marx is undoubtedly the first thinker arguing workers' contribution to commodity's value. In his argument, a commodity's value is the incremental difference between the sale price of this commodity and the total sum of its cost, including the cost of its raw materials, fixed capital, and salary to workers; this can be seen as the surplus value of this commodity (Marx 1990). It also

reflects the price difference between the value a worker makes for this commodity and the payment this worker receives from his employer. In his labor theory, capitalists are supposed to complete the capital accumulation only through exploiting workers' surplus labor, which is the price difference between the value a worker makes and the wages that this worker receives from his employer.

Therefore, how to efficiently extract surplus labor and prevent "soldiering" becomes the most important lesson all capitalists must learn. The invention of scientific management is a key factory to facilitate this extraction. According to Braverman's definition, scientific management means "an attempt to apply the methods of science to the increasingly complex problems of the control of labor in rapidly growing capitalist enterprises" (Braverman 1974:86). In other words, the invention of scientific management, through extracting workers' surplus labor, is to satisfy the interest of capitalists, rather than workers.[1]

Unlike Braverman's study focusing on scientific management, Michael Burawoy, inspired by Antonio Gramsci's concept of hegemony, tries to explain how capitalists can extract worker's surplus value through the game of making out. Instead of arguing how to extract workers' surplus value with a coercive strategy that does not consider

[1] Braverman also figures out how the invention of scientific management will result in the rise of a new working class whose interest is separated from traditional, blue-collar workers. Those new working-class people, who serve as the repositories for specialized knowledge in production and administration (Braverman 1974:25), play an indispensable role to help capitalists more efficiently extract surplus labor power from shop floor workers. However, why are these new working-class people—including engineers, technicians, scientists, lower managerial and administrative aides, and experts—different from other wage laborers? Braverman argues that the responsibility of the new working class is to extract more benefits from those shop floor workers by using these three following principles: (1) dissociation of the labor process from the skills of the workers; (2) separation of conception from execution; and (3) use of this monopoly over knowledge to control each step of the labor process and its mode of execution (Ibid 1998:77-83). With the participation of this new working class in the management work, capitalists can invent more useful tools to extract wage laborers' labor force.

worker's willingness, Burawoy's question focuses on how capitalists can make workers voluntarily consent to a set of management policies used to facilitate capital accumulation. His concept, making out, could better explain workers' active participation in the game of "making out," in which workers voluntarily work hard to earn more money under the labor regime of piece work (Burawoy 1979). In other words, the combination of the piece wage and the game of making out becomes a more efficient approach to extract workers' surplus value than scientific management.[2]

Despite the different approaches, both Braverman and Burawoy consistently figure out that adding value to a commodity could only be attributed to workers' abstract labor, not their concrete labor.[3] If all concrete labor is transformed into abstract labor in terms of labor time, all craft skills will lose their qualitative differences because the value of

[2] The game of making out, increasing capitalist's interest through making workers voluntarily work hard, has several theoretical implications that are different from previous coercive policies based on scientific management. One very important implication is to weaken worker's class consciousness because a salary increase is considered an outcome resulting from personal decision and individual behavior. I am able to decide how hard I want to work today, rather than a public benefit shared by workers that could be obtained through collective bargaining. Besides, through weakening workers' class consciousness, the game of making out also plays a role to "obscure and secure surplus labor" (Burawoy 1979:107) because, in this game, workers will believe that the promotion in the factory, through proving that his personal performance is better than his/her colleagues, will be easier than finding a better job on the outside labor market. This belief, increased in the function of the internal market, will exacerbate the internal competition with colleagues rather than facilitate the class consciousness among workers.

[3] Both Braverman and Burawoy's perspective, focusing on the importance of deskilled and semiskilled workers' abstract labor, rather than their specific and concrete labor, let alone the discussion of crafts. According to Marx, the addition of new value of a specific commodity should not be attributed to the input of specific labor power. In contrast, the addition of value is the outcome of the input of worker's abstract labor, which means their "definite length of times" (Marx 1990:308). In Marx's original thought, the use value of a commodity is created by the input of specific labor power, such as the weaver by weaving, the smith by forging. However, specific labor power cannot be transformed into the exchange value of a commodity on the market for trading other commodities. We will only make a trade among different commodities possible if we consider the different amounts of labor times consumed on each commodity. For example, if we want to trade a guitar for candy bars, we will only try to establish a countable exchangeability between candy bars and a guitar in terms of how much labor time is consumed in each of them: the more labor time consumed in this guitar, the higher value it is, and the more candy bars you may purchase in the market with this guitar. This exchange in the market is based on the social process of abstract labor. Furthermore, the variety of concrete labor that is reduced to the amount of labor time loses its specific labor characteristics.

a craft-based product is determined by how different and dexterous skills and crafts are consumed in the production process, rather than their labor time. Therefore, if we want to explain why the craft-based manufacturing industry may still exist in the capitalist society, we must understand why extracting workers' labor time is not the only strategy to accumulate capital. Institutionalists' approaches show us how craft may offer a different path towards capitalist industrialization.

Institutionalist Perspective: Craft May Exist in Some Industrial Countries

From the institutionalists' perspective, the establishment and evolution of the labor regime cannot be reduced to calculate labor time. In contrast, it means various complicated processes in which craft production may remain in a capitalist society. Thus, craft production could be attributed to the evolution of its corresponding social-economic institutions, including social relations of production, organizational forms, and cultural value, which could be compatible with capitalism.

Piore and Sabel's concept, flexible specialization, highlights this pluralist approach. They argue how some industrial countries—for example, Japan, North Italy, France, and West Germany—maintained relatively stable economic performance, despite the economic stagnation after the 1970s. To explain how and why those countries could overcome the economic crisis, Piore and Sabel, through adopting the approach of firm-level analysis, try to answer this question with the concept of flexible specialization.[4]

[4] It means "accommodation to ceaseless change, rather than an effort to control it. This strategy is based on flexible—multi-use—equipment; skilled workers; and the creation, through politics, of an industrial community that restricts the forms of competition to those favoring innovation" (Piore and Sabel 1984:17).

According to Piore and Sabel, the market is seen as a ceaselessly changing environment: the more flexible a firm is, the more competitive it would be in the market. In contrast, a mass-production firm—depending on the standardized production and the extraction of deskilled and semiskilled workers' labor time—will fail to adapt to the changing market by only selling standardized commodities.[5]

Institutionalists also notice the craft-oriented industrial tradition out of the United States. Kathleen Thelen's cross-national research explains how skill formations, especially craft-based apprenticeship, have evolved in Japan and Germany (Thelen 2004). She further uncovers how the different economy regimes will differently result in institutional evolutions on skill formation. The coordinated economy regime, such as Germany and Japan, would likely strengthen the artisanal sector's monopoly rights on skill training and certification. The liberal market economy regime, such as the UK and the United States, would rationalize the production by reducing the dependence on skilled artisans and apprenticeship.

For example, in the United States, the lack of traditional craft-oriented economic institutions, including the guild organization, the regulation of apprenticeship, and the trustworthy certification, deterred youths from working with a master for long years. Therefore, in the nineteenth century, the early industrialization in the United States

[5] This changing market environment also favors a tighter collaboration between small-scale workshops than mass production. Well-trained, experienced, and skilled workers (e.g., craft workers), who are more familiar with the entire production process than semiskilled workers, become the main resource of labor power in the flexible production. Collaboration between those skilled craftsmen could be more flexible than the management between employers and workers in a hierarchical organization to adapt to the changing market. Therefore, Piore and Sabel conclude that "[f]lexible specialization is predicated on collaboration. And the frequent changes in the production process put a premium on craft skills. Thus, the production worker's intellectual participation in the work process is enhanced- and his or her role revitalized." (Piore and Sabel 1984:278)

highly depended upon the mass immigration of dexterous artisans from Europe (Shefter 1986; Rorabaugh 1986). The government would even directly help recruit artisans for employers in need of skilled workers (Brody 1980; Shefter 1986, Thelen 2004).[6]

Consequently, US corporations create a different educational institute, the vestibule school system, which is based on the principle of scientific management in an industrial plant, to train new workers for learning specific skills. For the sake of training workers as quickly as possible, corporations are more likely to expect that their trainees may swiftly learn the best way to work, rather than try wrong methods several times to learn dexterous skills. Therefore, setting up a classroom next to the factory that is equipped with similar machines used at the factory would help trainees become familiar with the skills used in the factory.[7] Finally, the emergence of the vestibule school system may prove that the evolution of vocational education and skill formation in the US is affected by the lack of the tradition of the craft-oriented mode

[6] In fact, both the US government and private corporations have tried to establish institutes for regulating apprenticeships, but their endeavors were finally in vain. The first example is the official intervention by the state government. In 1911, Wisconsin became the first state to pass an apprenticeship program to officially regulate both sides of apprentices and employers (Thelen 2004). Another example was the establishment of corporation schools by private corporations (including Brown and Sharpe, Ford, General Electric, and Westinghouse), which were willing to directly offer in-plant training to workers rather than depending on foremen who were reluctant to train young workers. However, both these experiments were not successful. In the former case, the government's regulation was unable to prevent the problem of "poaching externalities" from happening; this means skilled workers were lured by other neighboring cities with the prospect of higher wages. Finally, workers could be poached by other corporations (Thelen 2004:201).

[7] There are three main principles of vestibule training. First, make a detailed investigation of each piece of work that will discover and record the best methods and standard time for every operation. Second, insist on the selection of high-grade workmen who have teaching ability to instruct beginners as well as old employees who are inefficient. Third, whenever high efficiency is obtained, compensate liberally not only those who actually do the work but also those who teach and those who supply materials and appliances that enable the workmen to maintain a high rate of production (Kelly 1920: 154).

of production and the rise of scientific management.

Compared with Marxism, the institutionalist perspective explains how both the craft industry and apprenticeship may be compatible with the capitalist mode of production in specific countries. However, their cross-national comparison approach overemphasizes the explanation of the industrial revolution in a single nation-state[8] and fails to explain how the rise of the craft industry may result in the industrial revolution in another country. In a word, their theory cannot explain the global impacts of industrial revolution in a single country. If we want to evaluate how the global mobility of craft matters, we should adopt the perspective of global sociology.

Global Sociology and the Craft Industry

Compared with the institutionalist school's cross-national comparison, the global sociological perspective may explain the global mobility of capitalism and industrialization in a global scaling approach. For example, economic geographers

[8] For example, in the studies focusing on growing inequality in the globalization epoch, institutionalists argue that the political institutions may be changed due to the structural pressures resulted from the globalization into the change of its national policies (Emmenegger, Häusermann, Palier, and Seeleib-Kaiser 2012). Moreover, other institutionalists' approach based on the cross-national comparison also emphasizes how the institutional change could, or could not, happen within the boundary of a nation-state. Such as Mark Tomlinson and Robert Walker 's analysis focusing on the relationship between the national labor market and its poverty dynamics in Germany and Great Britain (Tomlinson and Walker 2012), Daniela Kroos and Karin Gottschall's cross-national comparison of gender issues between France and Germany in terms of the situation of employment and job structures in public social services (Kroos and Gottschall 2012), Clegg's research focusing on the political dynamics in the unemployment benefit reforms of Belgium and France (Clegg 2012). In the studies focusing on explaining a variety of capitalism, obviously, their understanding of scale and place focuses on the nation-state, in a word, "on variation among national political economies" (Hall and Soskice 2003:4). From this perspective, scholars are more likely to explain how employers in different institutions of market economy, coordinated market economy or liberal market economy, will differently respond to labor representatives at both the macro-level (overall position of labor) and the micro-level (plant-level) within a nation-state(Thelen 2014).

created new concepts to explain the spatial dispersal beyond the limits of national boundaries. For instance, they use the concept "spatial division of labor" to understand how the dispersion of production is possible (Massey 1984; Walker 2000; Peck 2000). Different from industrial capitalists, who are prone to emphasize the concentration of production in an ideal industrial location, capitalists under global capitalism are more likely to stress the advantages of a dispersive production network in which various producers can be involved, including craft-based small workshop, mass production accessory suppliers, local businesses, and transnational corporation. For example, David Harvey emphasizes that "uneven geographical developments reflect the different ways in which different social groups have materially embedded their modes of sociality into the web of life, understood as an evolving socio-ecological system" (Harvey 2006:77).

However, can we draw a precise configuration of this "web of life"? How can this web connect different economic and social activities? The idea of global commodity chains (GCCs) offers us meaningful insight to rethink the characteristics of globalization. GCCs can be defined as "sets of interorganizational networks clustered around one commodity or product, linking households, enterprises and states to one another within the world-economy" (Gereffi, Korzeniewicz, and Korzeniewicz 1994:2). Therefore, the net of the global commodity chains refers to the extension of the commodity chain, which goes through geographical constraints. In the commodity chains, all actors are engaged, including designers, family-run workshops, small manufacturing factories, accessory suppliers, mass-production factories, financial

investors, headquarters of transnational corporations, and craft-based workshops. However, they are not working together in a concentrated area. In contrast, they separated into different areas around the world.[9] From GCCs' perspective, we can see how small-sized and craft-oriented firms may prove their flexibility and rock the world economy.

Although craft-based and small-sized firms have greater competitive advantages than large enterprises based on mass-production strategies (Hirst and Zeitlin, 1988; Murry, 1985; Piore and Sabel, 1984; Scott, 1988), how these small-sized firms can engage in the global commodity chains is unexplained. Accordingly, we may use three different governance structures—producer-driven, buyer-driven (Gereffi, 1994), and technology-driven (O' Riain, 2004)—to explain this participation process and which actors play crucial roles to create value for a product in global production chains.

In the producer-driven governance model, transnational corporations play a crucial role in deciding how they spread their production networks or commodity chains worldwide. In this model, only those capital-intensive industries, such as the automobile and airplane industries, that control the capital and skills can spread their production networks globally. In Piore and Sabel's research on Renault and Fiat, we may learn how these two capital-intensive automobile corporations may create their

[9] Another related concept is the global production chain (GPC), which is defined as "the circuit of interconnected functions, operations and transactions, through which a specific commodity, good or service is produced, distributed and consumed" (Dicken 2015: 54). However, different from GCC, GPC is more likely to emphasize the various configurations of non-physical "products," such as financial services, than is GCC, which only focuses on the spacious division of labor in terms of the manufacturing sector. In Dicken's definition, GPCs as several characteristics, such as the bilateral relationship between inputs and outputs, the contested relationships of actors within global production chains, and the impact on global civil society organizations (Ibid 2015).

flexible production web to incorporate small and craft-oriented firms through subcontracting relationships (Pioreand Sabel 1984).

In the buyer-driven governance model, retailers, or brand-named companies still play an important role, but they are different from the producer-driven model in monopolizing the core capital and skills and creating the entire commodity chains and production networks in which various producers in foreign countries are involved by receiving different subcontracting or outsourcing contracts with these retailers or brand-named companies. Companies in labor-intensive industries that own their brand are more likely to adopt this governance structure to spread their production networks to other countries. Nike is a famous example that shows how a transnational corporation can use cheap labor forces in developing countries to make expensive shoes for its valuable brand that is endorsed by professional sports athletes.

Technology-driven is a different governance model that is not driven by a unique transnational corporation. Instead, this model is based on the shared technology standards that allow different producers or actors may create values for their products. By observing the Irish software industry, O' Riain (2004) explores this technology-driven concept to describe the third commodity chains model, which emphasizes the social process in which software companies have to set up a common technology standard for everyone in this industry. Then, system integrators, custom service sectors, and other related manufacturers can participate in the production networks to complete the production in the IT industry. Compared with the first two models, the technology-driven model seems better at describing the development of the musical instrument

industry because this model provides an area for all actors to collectively establish a common standard. The development of MIDI (Musical Instrument Digital Interface) is a good example of how different keyboard companies, such as Yamaha, Roland, Korg, and Kawai, can make their keyboards or digital pianos with a shared communication interface and protocol.

These three models share a common assumption that creating a commodity's value is a global activity in which different actors—including transnational corporations, local manufacturers, dealers, endorsers, and consumers—collectively contribute their efforts to increase this commodity's market value. Unlike traditional Marxists' wisdom focusing on only workers' contributions, the global sociological perspective helps people understand how various social actors participate in the production and the creation of value.

However, these three models still focus on big transnational corporations' experiences. If we want to explain small and medium-sized enterprises' capacity to act in a given globalized instrumental industry, such as how they may have a chance to build and sell their products through global production networks, we may need a modified governance structure to explain their unique experiences.

Besides, in the concept of global commodity chains, both small and medium-sized firms and craft-oriented companies remain supporting actors who are waiting for outsourced jobs from transnational corporations. It still fails to explain why craft-oriented artisans may become a main actor in setting values for high-end, "boutique guitars." Furthermore, like the Marxist and institutionalist perspectives, the global

sociological perspective may explain the spatial spread of the craft-oriented production but fail to explain the historical context of this production.

If we are interested in how a craft-made industry may develop in a specific context, we should review the history of this industry. The concepts and theories above may help highlight how this craft industry can work but cannot replace the historical analysis to determine how it has evolved. Additionally, we also need a clear description of the labor process, including the specific characteristics and the skill formations of the craft, to explain why they are different from mass-production skills. This explanation, based on the description of craft labor, will show us why craft is a critical factor to make a profit.

If we want to concretely understand the details of the craft and the relationship between craft, labor, and commodity, we need a specific case to prove how specific and concrete labor of a craft may add value to a commodity. The studies that focus on luxury goods can help us understand how craft production can create a profit in the market and how the consumption of luxury goods is related to the rise of the craft-made manufacturing industry.

Cultural Analysis of Luxury Commodities: Vintage Guitars and Boutique Guitars

Unlike the political economy focusing on the craft-oriented industry's global context, the cultural perspective focuses on the use-value of a craft on a commodity and the value of an artisan's skill formation process. It implies that we must

punctiliously indicate the characteristics, differences, and qualities of a craft work used for a commodity and indicate how an artisan may learn this specific craft-oriented mode of production in a specific cultural context. Any commodity that is proclaimed "craft-made" is usually seen as a high-end, expensive, and specific commodity on the market, so we must first discuss the relationship between craft production and luxury goods in the literature review of the cultural perspective.

The Rise of Luxury Goods and its Cultural Impacts

Unlike the previous perspectives that focus on labor and production, studies on luxury goods emphasize the impacts of management. Additionally, this perspective also explains why consumers are willing to spend high prices to purchase luxury goods. In other words, it tries to explain the effect of a luxury good's brand and its cultural impacts on consumers.

In the studies of consumers' brand attitudes, not surprisingly, scholars explore how consumers' positive attitudes towards a brand may increase their perceived value (Yang and Mattila 2016). Early empirical studies focusing on the correlation between the value of luxury goods and consumer's attitudes argue how the different social classes of consumers could result in their different brand attitudes under the Western cultural and social context. Not surprisingly, these studies usually determined that the consumption of luxury goods only reflected a few social and economic elites' specific cultural tastes and lifestyles. Therefore, only those "happy few" or "refined people" are adequate enough to understand the actual value of luxury goods (Dubois, Czellar, and

Laurent 2005). From this perspective, we may quickly realize that only the professional players and collectors are "adequate" enough to have a craft-made boutique guitar built by master builders. Moreover, only these few elites understand why this boutique guitar has its specific value. We may find similar perspectives from some sociological studies focusing on the discussion of cultural capitals (Bourdieu 1984) or the critiques of the cultural meanings of a consumption society (Baudrillard 1998).

Furthermore, from the perspective of a corporation's governance, building a successful image of a brand could be seen as a different strategy to manage a corporation and even manage its brand. For example, in Bengtsson and Ostberg's study, successful brand management could indicate "a matter of finding the brand's true and timeless essence and carrying out brand-building activities that will translate the identity into a corresponding brand image" (Bengtsson and Ostberg 2006). Another scholar directly advocates that branding means "imposing one's will on the consumer" (Murphy 1998:2). Therefore, power brands are "those brands which are particularly well adapted to the environment and which thus survive and flourish. They are the ultimate examples of an organisation's marketing skills-their finest and most valuable productions" (Ibid 1998:2). Obviously, from the perspective of brand managing and marketing, branding directly means a specific strategy of marketing. The greater the skills needed to manage a brand image, the greater the market value of the brand that can be successfully added to this luxury good.

Therefore, the craft used on a luxury good can strengthen consumers' identity of this luxury good. Luis Vuitton's (LV) strategy to manage the images of its luxury goods

closely fulfills this idea. LV's principle is to "pump up the status, pump out to the mass market" (Chadha and Husband 2006: 250), which means LV strives to create exclusive experiences for their customers by making custom-ordered and craft-made products to satisfy consumers' specific needs, instead of emphasizing products' scarcity. In this case, the branding strategy of LV's luxury image is to make customers believe that their need for exclusive, custom-ordered products or products will be satisfied.

Tilar J. Mazzeo's historical research on Chanel No 5 (2010) is another brilliant example to illustrate that adding value to a luxury good is a specific process of social recognition. In her research, the evolution of Chanel No 5, from a local boutique shop in France to a globally famous brand, experienced several different stages: (1) creating exclusive tastes for selected elites, (2) being in vogue within French celebrities, (3) rising in the economic boom after WWI, and (4) establishing the connection with the cultural industry for creating its cultural images.[10] In Mazzeo's great historical research on the rise and transformation of Chanel No 5, we may learn that the successful construction of a "luxury good" and its branding process should result from various reasons in its specific social and cultural contexts, including the exclusivity of elitist cultural taste, artisan craftsmanship, modern market strategies, and even ordinary people's consumption desires aroused by mass media.

[10] The creation of Chanel No 5's cultural image through cooperating with the cultural industry could be one of the most conspicuous and successful marketing strategies in business administration. In 1931, it was the first time that Coco Chanel decided to design clothes for the movie industry in Hollywood. But maybe the most unforgettable case is Marilyn Monroe's classical phrase in an interview in 1952: "you know, they ask me questions. Just an example: 'what do you wear to bed? A pajama top? The bottoms of the pajamas? A nightgown?' So, I said, 'Chanel No. 5,' because it's the truth.'" In this period, Marilyn Monroe's commercial, in Mazzeo's analysis, just highlights that Chanel No 5 is a cultural symbol reflecting the cooperation between a luxury good and mass cultural entertainment.

Moreover, Mazzeo's study highlights that a luxury good's market value is determined by a social and cultural process through which consumers gradually accept its specific cultural image. Likewise, the craft-made guitar industry also distinguishes its products from those of the mass-production factory by creating a specific cultural image for its products. Even some mass-production factories emphasize that their guitars are "crafted" rather than "made."

The original definition of vintage implied a season's yield of grapes or wine from a vineyard, but it is now gradually used to describe a period of origin or manufacture. On the guitar market, especially the used guitar market, vintage becomes an important criterion to judge a guitar's value. According to the definition from Reverb.com, an online marketplace for new, used, and vintage instruments, vintage means "anything made before 1980."[11] Obviously, vintage guitars—like wine but different from laptops or cell phones, which become cheaper with age—could be more expensive if you keep them for several decades. In the next chapter, by reviewing both Fender and Taylor's stories, I will further explain how cultural images, such as vintage, tradition, and innovation, can be created by these two guitar companies who also play a critical role in accelerating the rise of the craft-made guitar industry.

All these foregoing perspectives of luxury goods, customer's attitudes, and branding strategies are similar in that only the producers, especially the owner of the brands, can create value for their brands and products by using concrete craft labor. However, this perspective overemphasizes the importance of branding and consumers'

[11] See: https://reverb.com/page/vintage-guitar-faq

identities and overlooks how the skilled artisan's dexterous crafts may contribute to the creation of the value. If we review the original question at the beginning of Chapter One, we must question why the Stratocaster, which was only built by John Cruz at the Custom Shop, could be seen as a luxury good but why Mexican workers' Stratocaster is not.

In other words, how a skilled craft worker impacts a luxury good's value remains unclear. Moreover, it is unclear whether craft works and craftsmanship always comply with the principles of capitalism. Can artisans and craft workers never oppose capitalism? To answer these questions, we must find answers from historians and cultural anthropologists' studies.

Cultural Perspective I: Craftsmanship as a Cultural Resistance against Industrial Capitalism

Unlike scholars who focus on how cultural factors matter to the marketing strategies of luxury goods, historians, art critics, and cultural anthropologists are more likely to treat the rise of craftsmanship as a cultural movement against industrial capitalism. The rise of the Luddite movement is a good example to highlight artisans' collective rebellion against industrial capitalism.

The capitalist mode of production led to various violent riots organized by artisans and craftsmen to fight against this transformation of the social economy in the 18th Century. One of the most influential riots should be the rise of the Luddite movement, a specific well-organized riot to destroy modern factory machines. Actually, the rise of the Luddite movement can be regarded as a collective reaction initiated by artisans who

hope to prevent their privilege from being repealed due to the future machinery mode of production[12].

E.P. Thompson's description of the Luddite Movement highlights two questions regarding its cultural meanings. First, how could the rise of mass production and the adoption of machinery production change the social relationships of production based on craftsmanship and apprenticeship? Second, how would those artisans respond to this social change? First, because of the rise of the Industrial Revolution and the use of machinery—including the steam engine, milling machine, and spinning frame—a factory owner could produce more and better goods by hiring unskilled women, children, and apprentices. In other words, no one would like to hire dexterous artisans anymore. The second aspect is how artisans organized together to fight against this machine-using mode of production in the name of General Ludd. In this movement,

[12] The rise of Luddite movements could be seen as a class struggle at the beginning of the capitalist industrialization era (Marx 1978). Basically, the characteristics of this class struggle can be summarized in the three following dimensions: (1) the protest against the changing law and political orders, (2) the protection of artisan's privilege economic interests, and (3) the decline of apprenticeship. First, the context of the Luddite movement might result from a series of legislation for illegalizing all activities of trade unions of artisans, such as The Combination Acts, a meaningful symbol highlighting legislators' struggle to create a free labor market within the principle of laissez-faire through destroying existing trade unions and guilds (Thompson, 1966). The meanings of this legislation are used to explore the politicians' intention to "reinforc[e] existing laws against trade unions, making it a criminal offence for workers to join forces in pressing their employers for higher wages or the reduction of working hours" (Bailey 1998: xiv). Second, the rise of the Luddite movement is also a struggle to protect artisans' economic interests embedded in their voluntary association, especially Friendly Society, which is an association for the purpose of insurance among craft participants. Members were required to contribute a portion of their salaries to this voluntary association, and they could draw money if they were in an emergency, such as sickness, death, or unemployment (Hopkins 1995; Thompson 1966; Thelen 2004). Third, the deadline of Luddite movements also implies the decline of apprenticeship and the rise of wage labor. Basically, Luddite movements were organized by the alliance among skilled artisans, journeymen, and owners of small shops without the participation of apprentices. The repeal of the Statute of Artificers in 1814 resulted in the liberation of apprentices from the compulsory seven-year apprenticeship, and they were allowed to be legally hired by any factory owners. In other words, skilled workers' interest and their privilege in the labor market might be challenged by those cheap but unskilled rookies (Thompson 1966:245). In fact, many perspectives advocated in the Luddite movement are pretty similar to Kaczynski's criticism of modern industrial capitalism (Kaczynsk 1995).

through threatening to destroy machines, artisans and journeymen forced factory owners to hire artisans with a liberal salary, rather than cheap labor forces, such as women and children, without receiving any craft training through an apprenticeship. In a word, these two aspects also indicate how artisans and craft workers organized a collective movement to try to overthrow industrial capitalism based upon the idea of laissez-faire.

The Arts and Craft Movement, rising in the late nineteenth century, is another cultural movement against industrial capitalism that was organized by craft workers and artisans. Participants in this movement denounced the separation of art from labor in industrial capitalism, which only treated labor as a tool to facilitate capital accumulation and earn a living for working-class people. Many leaders in this movement argued that the regeneration of craftsmanship—or the reunification of art and labor—could arouse workers' aesthetic consciousness by reunifying execution and creativity. John Ruskin and William Morris were the two most important pioneers in the Arts and Craft Movement in the UK.

John Ruskin, an English art critic of the nineteenth century, might be one of the earliest art and architecture critics who emphasized the reunion of arts and craft to fight modern industrialization. Unlike the logic of modern industrialization, focusing on enhancing productivity, Ruskin advocated the importance of beauty. In Raymond William's interpretation, Ruskin's definition of beauty, including both typical beauty and vital beauty, could be separately seen as his art criticism and social criticism. The former is related to the work of art and the latter the felicitous fulfillment of function.

Both are "inherently and essentially related… both are applications" (Williams 1989:146). Moreover, if we want to judge whether a thing or a fruit of labor may fulfill the definition of vital beauty, we must observe whether it is a "joyful and right exertion of perfect life in man" (Ibid 1989:146). Ruskin's idea here is similar to Marx's social criticism of alienation, resulting from the division of labor. The ideal of artwork should only be completed by a whole man, who is not undermined by modern industrial society (Boris 1986). Moreover, like Braverman's perspective, Ruskin criticized that the separation of "thinking" from "working" would only result in making both "morbid thinkers" and "miserable workers" (Thompson 1976: 66).

William Morris, another versatile Arts and Craft Movement leader,[13] who was inspired by Ruskin, also determined the importance of the reunification of execution and creativity. For instance, he criticized, like Ruskin, that the rise of the mass production industry resulted in the separation of the sense of beauty from labor; however, Morris advocated that any worker will have the artistic potential if this worker has a chance to be educated on how to express the creativity through drawing a plan or making a design (Ibid 1976). Moreover, different from Ruskin, Morris was more likely to extend Ruskin's critiques from the moral to social aesthetic. Therefore, Morris believes that craftsmanship should be an anti-capitalist way of life. Furthermore, the relationship between makers and users of a product should not be based on the monetary economy, just like Marx's critique of commodity fetishism in a capitalist

[13] William Morris was a novelist, poet, textile designer, and craftsman. To be against the boring and standardized textile products made within the machinery-made mass industry, he made hundreds of craft-based decorated pieces of textiles, wallpapers, and embroideries (MacCarthy 1994). Furthermore, he also designed architecture.

society. Instead, it should be based on mutual support and knowledge; therefore, real craftsmanship could be completed only in an equal society (Boris 1986:11).

Now, we may briefly conclude the purpose of the Arts and Craft Movement based on Ruskin's and Morris's thoughts. Their expectation is not so much the return to the nostalgic social life before capitalism as the positive creation of a socialist way of life in which workers will be emancipated from the wage labor and establish a new linkage between aesthetics and crafts. Hence, some scholars, when they comment on the works of both Ruskin and Morris, directly conclude that "good craftsmanship implies socialism" (Sennett 2008:288).

Cultural Perspective II: Craftsmanship as an Element of Capitalism

Compared to the socialist tradition in the UK, American social and cultural thinkers are more likely to decipher the characteristics of a craft and its connection to capitalism. By exploring the meanings of craftsmanship or hand-made industries, they show us how a craft-based mode of production can break the limits of the capitalist mode of production and emancipate workers from alienation. For example, Richard Sennett determined two large issues of craftsmanship: the craftsman's desire to do good work, and the abilities required to do good work (Sennett 2008:241). In other words, a craft worker is not a machine without knowledge. Instead, he must clearly understand how to complete his jobs to fulfill the requirements of "good work." Moreover, we must acknowledge that the purpose of "good work" is for people's use, rather than for earning profits in the market through trading it.

Richard Sennett also shows how the practice of craft is difficult in contemporary society. First, the traditional craft thought of "good work for the sake of the group" has declined. Second, some high-tech machines or computers are harmful to the reunion of hand and head in craft work. As a craft worker, the separation of the hand from the head is unacceptable, but using machines will cause the separation of hand from head. The third concern is the conflict between tacit and explicit knowledge. Learning a craft is more likely to depend upon obtaining experience through repeated practice, rather than from a standard operating procedure with explicit and correct knowledge (Sennett 2008:52).

Kathryn Marie Dudley, similar to Sennett, argues that the practice of hand-made artisans is the practice of "going by touch," through which "artisans' emphasis on integrating themselves with the craft object undermines a basic premise of commodification" (Dudley 2014:287). In Dudley's research of hand-made guitar builders, the human activity of craft production is a reintegration process in which artisan's mentality and practice can be united again. In other words, laborers can regain the autonomy to use their labor again.

Moreover, Dudley believes that using machines, such as a computerized numerical control machine (CNC), is a clever strategy. Not only can using machines liberate artisans from boring and routine activities, such as carving and shaving, but it can also save artisans' energy to concentrate on creative work. The latter is the real thing relevant to art and creativity. After reviewing Widhman's comments on the Roberto-Venn Guitar School, Dudley argues that creativity is important to the craft work of

guitar-building. Furthermore, this creativity means the emancipation of craft workers: "Creativity… also involves developing aesthetic gifts by 'taking something in,' 'holding on to it,' and then 'putting it back out' (Dudley 2014:180).

According to both Sennett and Dudley's research, we may point out that American scholars with a cultural perspective seem to bring the use-value back to the commodity economy in capitalist society. Regardless of the different definitions of craft—Sennett's desire to do good work for the sake of people or Dudley's various descriptions of craft—both agree that, despite the capitalist society, the use of craft can not only crystallize the original plan that a consumer wants but also emancipate the artisan himself in the labor process. In their analysis, the craft is concrete labor implying the aggregate of this artisan's experience, skill, and creativity, rather than abstract labor only reduced as countable labor time for the interest of capital accumulation.

Summary

The political economy and cultural perspectives offer us two different theoretical frameworks to explain the relationship between craft and capitalism. The former highlights how the craft skill may be involved with the global commodity chains or production networks; the latter focuses on the essence of the craft itself embedded in its traditional mode of production and the skill formation process. Each of them individually determines different aspects of the craft-oriented mode of production and fails to explain the entire development of the craft industry in recent years. For example, if the rise of the craft-made guitar industry, as a flexible specialization or a specific

institutionalization of industrialization, is part of global commodity chains, how can we explain the rise of various independent guitar shops on the guitar market? In contrast, if the emergence of independent luthiers represents the regeneration of the traditional business model, in which consumers have a chance to communicate with producers directly, how can we describe the various and complicated relationships between this small production business and mass production guitar brands in the global context?

By using cases from both the electric and acoustic guitar industry, I will modify these two theoretical models and try to offer a better explanation for the rise of the craft guitar industry in this global capitalist era. In the next chapter, I will further introduce my research method, research framework, and the selection of the empirical cases. Moreover, I will clarify why the method and cases I select may help answer the research questions.

Chapter Three Case Studies and Methodology

The main question this dissertation aims to answer is how the craft-based guitar industry may create value under global capitalism. In Chapter Two, I point out two perspectives, the political economy and cultural perspectives, to explain how a craft-oriented mode of production may add value to a commodity. The former focuses on the craft industry's labor process in the social context and the latter on the artisan's labor characteristics in the historical context. In this chapter, I will explain how these two approaches will determine the selection of research subjects.

The political economy's approach emphasizes how the environmental and structural factors matter to the rise of the craft-made industry. Key concepts reviewed in Chapter Two, such as global commodity chains and flexible specialization, clearly explained how actors participate in the economic activity in different geographical scales. Small-sized and craft-oriented manufacturers are more likely to make products in local shops and serve the local market. However, big and mass production brands can move upward to the top level and create their global commodity chains or production networks. Therefore, when I select research subjects to analyze how geographical and social context matter, this case must be able to highlight its local and global context.

Cultural perspectives focus on describing a craft's character in terms of its labor and skills. Additionally, cultural sociologists and anthropologists can effectively determine craft production's social meanings in a modern capitalist society, including

whether artisans remain a rebellious class in a capitalist society and will craftsmanship add cultural value to a luxury good. Therefore, my research subject should help define craft is and how its labor characteristics may make consumers accept its market value.

In Chapter Four, the review of two guitar companies' histories will help us understand how the rise of the craft-made industry has evolved in a specific global context and this industry's labor characteristics. From Chapter Five to Chapter Eight, the stories of individual guitar makers focusing on small builders will tell us how they strive to survive in a hierarchical structure embedded in the global guitar industry.

The Case Selection: Why Fender and Taylor?

In this section, I will explain why I select two mass-production brands, Fender Musical Instruments Corporation (Fender) and Taylor Guitars, as my research subjects in Chapter Four.

At first, both Fender and Taylor experienced a production transition between craft production and mass production. Second, their transition process resulted from the combination of innovation and tradition (i.e., the combination of advanced technology and craft skill). Third, both of their production lines can highlight the elements of the global output and local production. Fender makes products in the US, Japan, and Mexico; Taylor has a factory in Mexico for making guitar cases and parts. Additionally, both retain their craft-oriented production line in the US. Based on these three reasons, I selected these two companies as my research subjects to elucidate the changing structure of the guitar craft industry in the 1980s.

Despite being a mass-production guitar company in the 1950s, Fender created a custom-ordered, craft-oriented Fender Custom Shop in 1987. The establishment of the Custom Shop directly resulted in the rise of small, electric guitar brands in the future. Many mater builders hired by the Custom Shop as master builders, such as Fred Stuart, JW Black, John Page, Art Esparza, and Mark Kendrick, created their shops or brands after leaving Fender. John Cruz also launched his shop in November 2020.

Besides encouraging the rise of many small guitar builders and brands, Fender plays a crucial role in creating the cultural value of a mass production electric guitar. In a word, Fender successfully raises its guitars' prices by attaching a sticker called "vintage" on the headstock of its guitar.

According to the dataset of Reverb.com (Figure 1), one of the largest online marketplaces for instruments, Fender's market share in the vintage electric guitar market was 18.2% in 2006, only behind Gibson, an American guitar manufacturer founded in 1902.

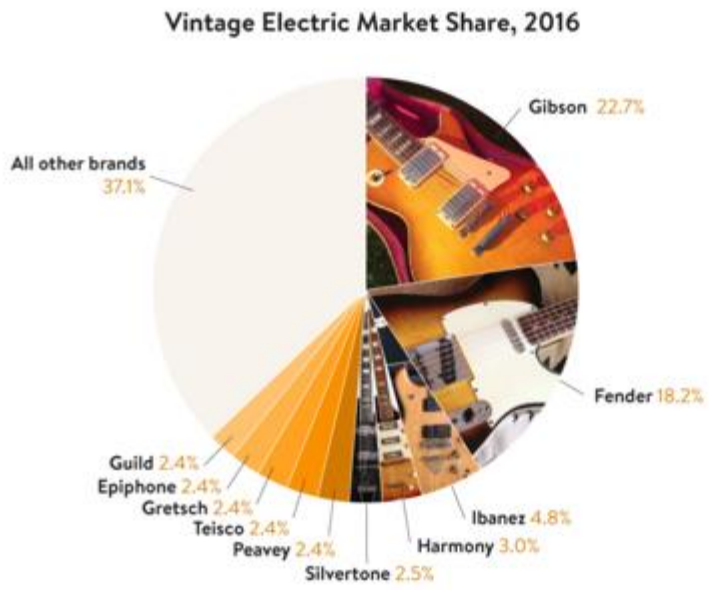


Figure 1. Vintage Electric Market Share, 2016

Source: https://reverb.com/news/reverbs-2016-vintage-guitar-and-bass-index

Despite being a young company that was founded in 1946, compared to Gibson, which was founded in 1902, Fender can stand out from the crowd, especially from other competitors during the same period, including Kay Musical Instrument Company founded in 1931, Danelectro Musical Instruments in 1947, and Guild Guitar Company in 1952. Undoubtedly, compared to these competitors, Fender is the most successful electric guitar manufacturer who can construct its cultural image in terms of a "vintage guitar," despite a company with a short history. Through reviewing how Fender can create its legend of being "vintage," we may learn how mass production can create value for a guitar using a different strategy than extracting

workers' surplus values.

Another investigation, Table 3-1, proves that Fender's "vintage image" is different from other competitors. Even though electric guitars become more expensive with age, different from other brands, Fender's old guitars made before the 1960s are more expensive than its guitars made after the 70s. According to Table 3-2, the average sale price of Fender's guitars in the 50s, $3,845, is even more expensive than Gibson's price, but Fender's guitars made after the 80s sharply drop down to $866. This price difference can appropriately describe how a "vintage Fender" is more precious than a "modern Fender." However, how can we explain why being "vintage" plays such an important role in raising Fender's price? Moreover, what factor results in the high price of Fender's "vintage guitars?" Again, Fender offers us an excellent example to explore how and why the cultural image of "vintage" may influence the market price.

Top 10 Electric Brands by Average Sale Value of Decade of Item

1950s		1960s		1970s		1980s	
Brand	Avg. Sale Price	Brand	Avg. Sale Price	Brand	Avg. Sale Price	Brand	Avg. Sale Price
Fender	$3,845	Gibson	$3,459	Gibson	$1,910	Gibson	$1,744
Gibson	$3,301	Fender	$2,819	Fender	$1,674	G&L	$1,011
Gretsch	$2,116	Gretsch	$1,714	Gretsch	$1,220	Fender	$866
Epiphone	$2,085	Epiphone	$1,647	Guild	$1,179	Ibanez	$756
Guild	$1,498	Guild	$1,565	Ibanez	$910	Yamaha	$709
Danelectro	$1,371	Hagstrom	$678	Yamaha	$835	Charvel	$586
Harmony	$824	Silvertone	$589	Greco	$645	Kramer	$562
Kay	$806	Harmony	$534	Electra	$642	Peavey	$389
Silvertone	$647	Kay	$473	Aria	$531	Aria	$388
Supro	$628	Teisco	$353	Univox	$528	Squier	$300

Table 3-1. Top 10 Electric Brands by Average Sales Price of an Item During a Decade

Source: https://reverb.com/news/reverbs-2016-vintage-guitar-and-bass-index

Taylor's stories may help us highlight different aspects of vintage and craft-made instruments in the acoustic guitar-making industry. Compared to the electric guitar industry, the acoustic guitar industry has a long history. For example, Martin Guitars, founded in 1833 and a No.1 acoustic guitar manufacturer in terms of its market share for a long time until 2014, has a history that is even longer than the idea of scientific management. Therefore, through reviewing Taylor's history, we may learn how acoustic guitar builders exploit their historical and cultural heritage to set values for their guitars.

Taylor's development can be seen as a pendulum swinging back and forth between craft-made (making one guitar at one time) and mass production (batch production) in its first ten years between 1974 and 1984. The frequent change of their production strategies resulted in unstable productivity. For example, Taylor made 467 guitars a year in 1977 in batch production. However, its productivity dropped to 100 guitars a year in 1980 after changing from batch production to craft-made production (building one guitar at one time). However, when Taylor decided to use CNC machines, their productivity increased to 2,427 guitars in 1990. In 2014, Taylor became the No.1 market share for acoustic guitars in the US domestic market, with a 23% share.

Taylor's strategy to disperse its global production chains reflects acoustic guitar maker's different thoughts from the counterparts in the electric guitar industry. Despite having a factory producing guitar cases and parts in Tecata, Mexico, all

guitars are made in the US. Unlike Fender's joint ventures in Japan and budget brands in other countries, Taylor's production strategy in global production is more likely to focus on the geographical concentration at a national level than electric guitar builders at a global level.

It is important to explore the different models of global production chains in the guitar industry. Taylor's model can be seen as a combination between craft-made and mass-production in a different global networking model. Generally speaking, both Fender and Taylor set up their different strategies to enhance their product's value by combining tradition and innovation, local production, and global networks. Furthermore, their development can highlight the new definition of craft and skill and different meanings of labor in the guitar industry, so I will introduce their histories in Chapter Four before discussing other small crafter builders in Chapter Five.

The Review of Fender's and Taylor's Company Histories

Even though the American guitar industry is one of the particular manufacturing industries that uses mass production, Taylor's transformation from mass production to craft-made during the period between the 1970s and 1980s is poorly explained. The stories of two guitar companies in California, Fender Musical Instruments Corporation and Taylor Guitars, may highlight how globalization matters to this transformation. To understand how both Fender and Taylor play an essential role in the guitar industry in the global context, I will explain how and why both local and global factors matter to the transformation of these two companies by recapping the histories of these two guitar

companies.

The review of Fender and Taylor's company histories may help us understand how the structure of the guitar-making industry has gradually evolved from the 1960s to the 80s. Many historians show us how the craft of historical writings can command the social change in history. For example, Haas (2014), by rewriting the history of the indigenous population in California, points out how indigenous people used the knowledge system from missionaries and colonizers to establish their specific cultural images in paintings and iconographies. It will be hard to understand the cultural history of the indigenous population in California without cultural politics, which may help us highlight the relationship between indigenous people, those real actors on the historical stage of colonization in California, and the Spanish colonizers' culture.

Another case is Igler's work focusing on the story of Miller & Lux, the largest private agricultural corporation in California in the nineteenth century. It highlights how an immense concentration of corporate power—including land ownership, grazing, cattle production, water rights, and irrigation systems—could be used to change the market, landscape, use of labor force through racial principles (especially Chinese immigrant labor forces), and the distribution of natural resources in California. Therefore, the development of the livestock industry cannot be fully understood if we have no sense of the interaction between racial politics and the uses of immigrant labor forces.

Finally, Gray Brechin (1999) critically rewrites the history of how San Francisco was constructed as a base for servicing the foreign policy based on the political context

of American Expansionism. In Gary Brechin's historiography of San Francisco, this city, like a historical drama on a stage, highlights the fact that the destinies and careers of those main actors, including William Randolph Hearst, the funder of Hearst Corporation, could not be understood without a complete understanding of the historical context of American politics.

This excellent historical research critically reviews the written history by providing the author's unique perspective. In their analysis, we may see how agents, including corporations, mass media, and persons, broadly think and behave. Moreover, their writings highlight the linkage between actors and events. The events could be anything that results in changes to the historical development, including news, judges, litigation, and mergers and acquisitions. In order words, reviewing Fender and Taylor's histories may reveal how some key persons have made the final decision in the decisive moment and how this decision could lead to the historical transformation.

Additionally, one advantage of reviewing Fender's and Taylor's company histories is that we can understand the contextual difference between the electric guitar industry and the acoustic one, which is rarely understood in previous studies. For example, Kathryn Dudley's research only focuses on the shared cultural values and labor meanings for acoustic guitar builders. However, it is questionable whether her research findings on the acoustic guitar industry may explain the electric guitar industry. In fact, each might have its own historical context and skill formation, and this should be correctly distinguished. Therefore, selecting both Fender and Taylor as the research subjects in Chapter Four fulfills the need to analyze the industrial contexts for both the

electric and acoustic guitar industries.

There are three additional reasons for selecting these two companies as an analytical unit. First, both are in California. Thus, exploring their stories may help us understand how California matters to their developments and how globalization matters to California's industrial history. Second, these two companies adopt the mass-production principle at the beginning. However, they have gradually upgraded from mass-production to craft-based production. Therefore, learning their experiences may highlight the industrial transformation in the US since the 1980s. Third, each of them, despite being funded in California, has gradually expanded as a global musical instrumental corporation that has created complicated global networks. So, reviewing them may command the whole picture of the guitar-making industry on a global scale.

Based on the review of Fender's and Taylor's histories, I will construct two models to explain how the craft-made guitar industry may create values for their products: the tradition of invention and the history against tradition. For instance, Fender's stories will show us how the invented tradition of Fender's "vintage," inspired by its Japanese competitors, results in the rise of the Custom Shop in the late 80s; however, Taylor's company history will highlight how the advanced technology may change the traditional way to build acoustic guitars. In Chapter 4, these two models may individually show us how the rise of a new production strategy might make the craft-made production play an essential role in adding value to a boutique guitar.

Ethnographical Works: A Variety of Strategies for Subsistence in the Changing Market

After introducing the stories of both Fender and Taylor and their transformation in the global context, Chapter Five will discuss stories of other small shop artisans. These may help us understand how artisans strive to survive in the changing market. Furthermore, I will explain how these two models may influence the strategies of those small shop owners and independent artisans. To complete this work, I will use the ethnography method to construct the cultural meanings of those guitar makers.

Despite being a traditional method for anthropologists to investigate distant, non-Western cultures through participant observation in an isolated society (Malinowski 1922; Mead 1928), more and more social science researchers adopt this method to describe modern institutions in Western societies (Goffman 1961). The rise of urban ethnography proves that the ethnographic writings have the advantage of describing the specific culture or subculture shared within a small community or cult, such as gangs (Venkatech 2008), poor people in urban areas of developing countries (Lewis 1975), youth subculture in schools (Willis 1981), and manufacturing workers at a factory (Burawoy 1979). In recent years, sociologists are continuingly exploring how a specific group of people's way of life may help us understand the functions of cultural politics in our society, such as how black people live their life under the discriminative intervention by the juridical system (Goffman 2014), models' careers in the fashion industry and their relationship to neoliberalism (Mears 2011), and the rise of some urban craft industries and why youths are willing to have a craft job in a big city (Ocejo 2017). All these examples show us ethnographical work is a powerful method to explore the culture of others and understand our society, especially to figure out the

cultural politics in our everyday life.

The change of research subject from distant non-Western indigenous society to modern society does not mean the shift of ethnographic method in sociology. All the basic research skills—such as participant observation, grounded theory, extended case methods, and thick descriptions—are still adopted by sociologists who strive to construct the research subject's homogeneity in a limited space and time. In other words, ethnography is seen as "the study of a culture or cultures that a group of people share" (Van Maanen 1995:4). However, in my dissertation, I will not try to construct a shared objective culture of my research objects. In contrast, the interpretation of guitar builders' cultural meanings will be integrated with my personal experiences, rather than objective descriptions of research objects' labor and life.

First, it could be meaningful to construct a shared objective culture among my informants. Different from traditional ethnographies that only focus on a particular population who share similar cultural values and live together in a closed community, craft-oriented guitar builders have few shared cultural values and separately live in different areas around the world, such as the US, Japan, Korea, and China. Hence, to understand the multiple meanings of the rise of the craft industry in the global context, I cannot collect data from guitar builders in only one country. Instead, I must interview guitar builders in different countries—the more diverse the country, the better. However, if my research subjects have a different way of life from each other, writing about their similarities could only lead to the construction of an unreal homogeneity.

Second, I must determine whether we can correctly understand the cultural

meanings of the craft industry only through interviews and observations, especially if we adopt Clifford Geertz's "thick description" to interpret the meanings of labor. The thick description, in Geertz's definition, implies an interpretative approach that may help us command the various meanings of social action in a specific cultural context. For example, the rapid contraction of eyelids may have many different meanings: twitches, winks, fake-winks, parodies, and rehearsals of parodies (Geertz 1973: 7). Through the thick description of the interaction of informants, ethnographers may correctly determine the correct meaning of the contraction of the eyelids in a specific context and the value system of the culture shared by the ethnographer's research subjects. From this perspective, the purpose of ethnography is to interpret the meanings of culture, just like Kathryn Dudley's interpretation of guitar marker's labor and culture. However, both Geertz's and Dudley's role in their fieldwork is as a participant-observer who does not have the real experience to live in the way of the informants. Therefore, they will never be seen as a member of the community that they observe. If I want to have a different perspective from Dudley, being a guitar builder through enrolling in a guitar-made craft educational institute will be a strategy to help me differently interpret the meanings of those guitar builders. The most important thing is that this learning process may allow me to observe how those guitar craft programs may play a role in training the vital labor forces for the craft guitar industry. Yet, this reproduction of labor forces is never discussed in Dudley's ethnography.

Additionally, the decision to enroll in a guitar-made craft educational institute is based on my previous working experience at Kaohsiung Labor Museum in 2010. Ten

years ago, to prepare a public exhibit for female workers at YAMAHA's guitar factor, I interviewed a variety of female workers who had worked at YAMAHA until the close of their factory in 2004. I was almost unable to seize their labor character due to my lack of prior knowledge about guitar-making skills, much less correctly interpret the cultural meanings of their labor conditions. In this frustrating research experience, I learned that interviews and observations are not enough to interpret the cultural implications of their labor character. If I would like to command the "thick description" of the labor process of guitar makers, I must learn basic knowledge of this industry.

Furthermore, many critical ethnographers have gradually abandoned the idea that there is a shared culture among our research subjects, and this culture can be objectively described in our ethnography. Instead, more and more ethnographers emphasize the role that research plays in the investigation and writing process, which means the importance of reflexivity or "turning back on oneself, a process of self-reference" (Davies 1998:4). Moreover, because of the clarification on how he/she plays a role in the research process, an ethnographer can determine the cultural differences between his/her research objects and other social groups and a theoretical framework that can be used to explain this specific cultural difference. For instance, when a researcher, especially a sociologist with one particular theoretical perspective, intrudes in a field, it is inevitable for this researcher to observe his/her research objects with a chosen theoretical preference, and this makes the "objective observation and investigation" almost impossible.

Therefore, in this study, I must determine how many different roles in the research

process I will play in front of my informants: a researcher, a guitar and bass player, and a fledgling guitar builder. Furthermore, I will show them how the combination of these roles may help me facilitate the research and understand their life, career, and labor[14].

The method for searching and selecting interviewees will be based on four principles: (1) uncovering key persons in the literature; (2) inviting guitar builders to the National Association of Music Merchants (NAMM) show; (3) contacting guitar builders I already know; and (4) following interviewee's recommendations (snowball sampling). First, it is a chance to find and create a catalog of interviewees by browsing publishing materials, websites, commercials, and even academic research. For example, the published book of Fender's history, *50 years of Fender*, may include many important key persons' names. In the literature review process, I will create a list of interview objects and then send them the invitation.

Second, participating in the NAMM show, which is the largest annual business exhibit, is also a part of my fieldwork. I will have a great chance to communicate with those guitar builders who participate in the NAMM show at their booth. This brief conversation may help me judge whether they have valuable experiences and are worth being interviewed. If so, I will invite them to be my informant. Third, as a bass player, I had created my social network with those guitar builders and repair technicians in Taiwan, so I may invite them to be my interviewees and ask for their help in finding

[14] One interview with a guitar builder in Santa Cruz in 2015 inspired me to enroll in a guitar craft program before beginning the fieldwork. In that interview, I asked a guitar builder why he only hired those artisans who have graduated from a guitar craft school even though this graduate has to learn from scratch in his shop. "This certificate proves his commitment to this career," he said. If going to school can be seen as a commitment to being a guitar artisan in craft industry, it can be compelling to show my commitment to doing this research.

other interviewees. The last principle, snowball sampling, is a prevalent strategy in the qualitative method. I will ask my informants to recommend other guitar builders or key persons who have specific experiences and are worth being interviewed.

These four principles may help me create a complete list of interviewees that may cover a variety of guitar builders in both the electric and acoustic guitar-making industries. Furthermore, the research objects will not be limited to guitar builders. In fact, dealers, salespersons, customers, instructors at the guitar craft institute, and even collectors may be my interviewees if they have unique experiences and observations regarding the guitar craft industry.

However, sampling errors from gender and race could be inevitable in this study. Based on my previous experiences of interviews and observations, very few black and female luthiers serve in this industry. It could be difficult to interview black and female luthiers. To overcome this sampling error, I will request my informants to offer me female or black luthier's contact information. Besides, I will ask informants whether there is any specific restriction against blacks or females in this industry.

In conclusion, again, all these strategies in my ethnographical method aim to delineate different guitar builders' struggles for subsistence. For example, in Chapter 5, I will describe how the rise of a global networking web of the craft-made guitar industry in a small city in California may have been gradually constructed since the 1970s. In Taiwan, we may see how a migrant guitar player from Singapore became the first guitar repair mechanic. His apprentice became the first international student in the Guitar Craft Program of Musician Institute in Hollywood in late 1990. We may also learn how

a guitar builder in Beijing learned guitar-making skills from a trust fund baby born in a privileged Chinese Communist family. All these stories emphasize that small shop artisans' specific and various globalization experiences are overlooked by mainstream social studies that overemphasize the transnational corporations' globalization experience.

Summary: Fender and Taylor's Models and Small Luthiers' Strategies

The construction of Fender and Taylor's models based on their developmental histories may have three strengths. First, we may learn how Fender and Taylor created two influential business models from combining craft and technology, local production, and global production. Therefore, I can command both the spatial dimension (globalization) and production dimension (history of the industry) in the writing process of the dissertation. Second, the combination of ethnography and historiography may highlight the dynamic social relations of production in terms of power. By describing small luthiers' concrete life experiences in the craft-based guitar industry in the global context, we may learn why some artisans may be successful and how they have greater power to reproduce their goodwill through their social relations with global dealers and famous guitar players than others who fail at such tasks. Third, based on historiography, we can not only have a different perspective from the traditional political economy—which is more likely to analyze globalization by only focusing on the dispersion of production in terms of capital, information, and business interests—but also understand the various meanings of the guitar makers' world composed of their

labor, business, life experience, social network, and struggles for subsistence in the changing market. Therefore, our analysis of guitar builders, which highlights ordinary people's way of life, rather than the benefit and interest of global capital, may be seen as a practice of Michael Burawoy's definition of the ethnographical studies of grounded globalization:

> *"Thus, in stepping outside our place of worship to plumb the worlds inhabited by other agents and victims of globalization, we hoped to recognize our own positionality. But we also wanted to do more than that, to construct perspectives on globalization from below, what we call grounded globalizations." (Burawoy 2000:341).*

Chapter Four: Invention of Tradition and Invention against Tradition

In this chapter, by reviewing Fender and Taylor's history, I will describe how craft has gradually played an important role in increasing guitars' value since the 1980s. Additionally, I will explore how two production strategies may help Fender and Taylor get through the guitar market downturn in the 1980s. The two different strategies—the invention of tradition and the invention against tradition—may separately indicate the different paths of guitar manufacturers in California. By reviewing the two guitar companies' histories, I will explore how tradition, craft, players, and advanced technology may work together to create values on an industrial commodity in the globalization epoch.

The Invented History of Fender's "Vintage"

"How to improve the tone or sound quality of my guitar" is always a popular topic in many internet forums regarding guitar gears or playing skills. Still, this article, "25 Ways to Upgrade Your Fender Stratocaster," is pretty different from other discussions because the author in this article assumed that "the vintage" means good quality:

> *[T]here was a time when vintage Fenders were thought to sound superior to newer ones simply because they were old, and most players content to leave it at that. As the prices of vintage Fender Stratocasters went stratospheric,*

the guitar community began to as why the old ones sounded different. Could those characteristics be replicated with newer instruments?[15]

Obviously, in this author's opinion, the good tone of a Fender Stratocaster, like wine, must come from a vintage fender's product rather than a modern Fender. In other words, the older, the better. Therefore, if you want to upgrade your Fender guitar, you must reproduce the characteristics of an old Fender with your modern Stratocaster.

Despite suggesting 25 ways to make a Fender Stratocaster look like a vintage Fender, this author did not define what this "vintage" means. We can almost find no clear definition to understand the characteristics of a Fender vintage guitar; maybe it is only a nebulous idea, such as the older, the better.

In the first part of this chapter, I will focus on Fender's history, which may help us retrospectively decipher how the vintage definition was invented and constructed by Fender's new management group, which took over the company from the Columbia Broadcasting System (CBS) in 1985. Furthermore, in this chapter, I will argue that the "vintage Fender guitar" might not be so much an authentic object as a fantastic idea.

Leo Fender's Philosophy of Mass production: The Simpler, the Better

Before exploring Fender's stories, I must point out that the electric guitar's history is very young. Although a guitar is a string instrument with a long history, the electric guitar is an industrial product with a history that is shorter than 100 years. For example,

[15] Please see https://guitar.com/guides/diy-workshop/25-ways-to-upgrade-your-fender-stratocaster/

Fender Telecaster, the first best-selling product of Fender, was released in 1950. The success of the Telecaster, including other Fender's products, such as Stratocaster, Precision Bass, and Jazz Bass, should be attributed to the innovations of its founder, Leo Fender. His unprecedented innovations, such as the bolt-on neck, replaceable parts, simple structure, and the selection of cheap sound woods for making guitars, really opened a new page of the electric guitar industry's history.

The first innovation of Fender's guitar was the adoption of a bolt-on neck. Unlike the traditional glue-in neck, the bolt-on neck is a pretty simple structure for any unskilled worker to lock screws tightly without dexterous skills for building a glue-in neck. This innovation is a good example of Leo Fender's production philosophy: easy to build and easy to repair (Duchossoir 1991:7).

Adopting replaceable parts on Fender's guitar successfully reduced the dependence on dexterous artisans because the reduction of guitar parts directly results in simplifying fabrication and maintenance work. For example, these are the only parts needed to fabricate a Telecaster guitar: a body, a neck, two pickups, a set of control pots, hardware, a bridge, six tuning keys, and a piece of a pickguard. That is everything. As recalled by John Page, one of the earliest artisans working for the Fender Custom Shop in the late 1980s, "[t]he Telecaster is the physical realization of Leo Fender's approach to the electric guitar. It is a timeless and brilliantly simple instrument… Because Tele's design is so simple and functional, it is the perfect guitar to start with if you want to try your hand at guitar building" (Kelly 2012:67).

Besides these innovations in guitar design, we should also mention that Leo

Fender is one of the earliest guitar manufacturers, who adopted an assembly line for producing guitars. As a radio repair technician who majored in accounting at Fullerton Junior College, Leo Fender only had little prior knowledge of engineering and management. Thereby, he invited Forrest White to work with him to establish the management principles on the shop floor. Forrest White was an industrial engineer specialist, who had worked at an aircraft firm in Akron, Ohio, but later moved to Los Angeles in 1944. Before being invited to work at Fender, he had tried to build several guitars in his spare time. When White visited Leo's factory, he was impressed by its inefficient arrangement of the factory.

> *Leo took an intrigued Forrest White to look at Fender's set-up at the new South Raymond buildings. "And it was a mess," White remembered. "There was no planning whatsoever, and that was because Leo was not an engineer; he was an accountant. Things had just been set down any place. Man, everything was just so mixed up, you can't believe it. There was no planning whatsoever, because, in all fairness to him, he didn't have any experience in things like that." (Bacon 2012a:29-32)*

White's participation in Fender's company directly enhanced productivity by adopting these two strategies: the rationalization of production and the approval system of the assembler. Furthermore, both these strategies are very similar to the institutionalists' description of American manufacturers who followed the philosophy

of mass production.

The first strategy invented by White was to increase productivity and reduce labor costs through the rationalization of production, which is easily observed in any typical American manufacturing factory if they adopt the assembly line's production strategy. At a guitar factory with an assembly line, workers will be divided into different stations: some workers are assigned to level lumbers with drum sanders; some cut guitar bodies with band saws. If we move on to the next station, we will see a different production process: some workers glue fingerboard and neck together; some drill pickup holes and an electric device cavity on the guitar body with a handheld router or vertical mill. All production procedures—including cutting, leveling, sanding, gluing, painting, electronic welding, and fabrication—are divided into different departments. Finally, assemblers work together to complete the production of the guitar. The interview with Forrest White elucidates the fabrication process in Fender's shop floor in the 50s:

> *In the Fender shop, said White, the workers then used router plates, made out of quarter-inch steel in the shape of the guitar body. "You'd attach one to the bottom with a couple of screws, and you could drill on that side, where the neck plate and everything went. On the other side went the plate where the pickups and everything ran. So you always had a minimum of two plates, sometimes three, later, depending on how sophisticated the instrument was-some might have more cut-outs and so on. You'd screw those on, trace around them, band-saw the body roughly to shape, then take off the excess on the*

router, and on it would go for sanding." (Ibid 2012a:32)

Second, the purpose of the assembler's approval system was to ensure that workers would make guitar parts as correctly as possible before sending them to the next step on the assembly line. For instance, all assemblers were required to sign their names on the parts they built, and assemblers could also reject the part completed in the previous stage if they believed that this part was imperfect.

> *"The reason for that," White explained, "was that if something had to be re-worked, it was on their own time If someone loused up, then hey- once they accepted it, it's their problem. But as long as they turned out good production that passed, they made good money, darned good money." (Ibid 2012a 32)*

This passage reveals the positive impact this approval system might have. It can effectively decrease defects by inviting assemblers to participate in quality control, which is supposed to be the engineer's work. Of course, this new principle could not have been successful if the whole factory had not run with assembly lines based on Leo Fender's philosophy, emphasizing how to make guitars as quickly as possible. We might even point out that this approval system crystallized Leo Fender's mass production philosophy.

Both Leo Fender and Forrest White tried their best to simplify the guitar-making procedures, so workers could quickly assemble parts, despite being a rough assembly

line without many advanced machines.[16] All Leo Fender's simplification of production and Forrest White's scientific management policies successfully resulted in enhancing assemblers' productivity. According to White's interview, "[p]roduction staff were making 1500 guitars at the end of 1964, compared to the 40 a week when he joined the company ten years earlier" (Ibid 2012a:48). Obviously, Fender's success is another duplication of Fordism, a typical American production style in the early twentieth century. Guitars made by Fender, just like the Model T made by Ford, is the crystallization of mass production:

> *Leo Fender took a different path in his quest for a guitar that was analogous to Henry Ford's Model T—one where any part could be easily, quickly, and affordably replaced by anyone with a basic skill set and access to common hand tools (Gallagher 2012:8).*

Undoubtedly, the adoption of the mass production strategy was successful. First, all the previous Fender models released in the early 50s, including Telecaster, Stratocaster, Precision Bass, and Jazz Bass, became the best-selling models. Compared with the sales in the early 50s. The sales in the mid-1960s enhanced more than ten

[16] According to Forrest White's interview, he very clearly remembered that Leo Fender's shop floor was actually very simple and crude: *"And then there was a mandrel that had the holes cut out for the frets. Leo designed almost all of the tooling himself. It was very simple, but it was a case of having to walk before you ran. We didn't have any computerized routers and so on like they have now, where they can cut out half a dozen necks at a time. It was one at a time back then, and everything was simple. Crude, really, but it got the job done" There were more crude machines throughout Fender's factories. Some workers used ramshackle affairs with wheels and pulleys to wind pickups. There were some ad-hoc, finish-spray booths near a wall for racks for drying the freshly sprayed bodies. There were punch presses for making metal parts and benches at which workers did final assembly (Bacon 2012a:32-33).*

times:[17]

> *Sales boss Don Randall remembers writing a million dollars' worth of sales during his first year in the 1950s, which rose to some $10 million in the mid 1960s (translating to something like $40 million of retail sales). Electric guitars were at their peak of popularity, and Fender was among the biggest and most successful producers, welling its products in the US and well beyond (Bacon 2010: 38).*

However, we cannot simply attribute Leo Fender's success to the scientific management and mass-production strategy. As a radio repair technician who did not know how to play guitar, much less how to tune a guitar, Leo Fender may not have reached success in the market if he had not understood the modern music industry's needs through his collaboration with musicians.

The popularity of the Stratocaster, the second released electric guitar invented by Leo Fender in 1954, can prove the importance of working with musicians if a luthier wants to make a popular guitar for consumers. The most direct assistance a luthier may receive from a player is listening to players' suggestions because only players know what modification can make them play more comfortably. The invention of the

[17] Besides, we must figure out the advantage of Fender guitars' low price in the 50s. When Leo Fender Released the Telecaster in the early 50s, its price was 165 USD, and a 1954 Stratocaster was 200 USD. However, a Gibson Les Paul in 1959 was 375 USD. Please see: https://forum.seymourduncan.com/showthread.php?17061-How-much-did-Les-Paul-s-amp-Strats-cost-back-in-the-late-50-s.

Stratocaster in 1954 can be seen as a combination of Leo Fender's innovation and musicians' constructive suggestions. The body's design, two-cutaway horns, is based on Leo Fender's Precision Bass, one of the bestsellers in Fender's catalog released in 1951. However, Leo Fender adopted other musicians' suggestions to modify the design. Bill Carson, the lead guitarist of Hank Thompson, suggested that Leo Fender use a bridge with six independent saddles and make a contoured body for the player's comfort (White 1994). Besides adopting players' suggestions, famous players also perform an important role in endorsing and promoting Fender's products in later years. In Appendix I, it is evident that Fender knows how to invite famous players to be their endorsers and use Fender's new product to play in a gig or do studio recording work. Therefore, in Forrest White's memoir, he revealed the importance of working with players:

> *Leo listened to suggestions from musicians and was receptive to ideas regardless of where they came from. Remember, he did not play the guitar- never even learned to tune one, so the only way he had of knowing what was good or unacceptable for the musician was to ask. He had the ability to take those suggestions and ideas, and perfect them (White 1994:40).*

The Rise of the Copyist and the End of the CBS Fender

However, the profit model based upon mass production and collaboration with musicians had gradually reached its limits, especially since CBS took over the company

from Leo Fender due to Leo's ill health in 1965. Under the management of CBS between 1965 and 1980, Fender was unable to compete with other guitar manufacturers, and CBS finally sold to Bill Schultz in 1985. CBS failed for three reasons: (1) the overemphasis on cost reduction; (2) an incorrect marketing policy; and (3) the rise of "Japanese Copyists."

After taking over the company, CBS tried to enhance the profits by continuously reducing production costs, including by using the modified leftover parts to assemble a new model. However, this was the first mistake CBS made because CBS did not acknowledge that the unlimited cost reduction would result in the decline of product quality and finally lead to a decrease in sales.

The invention and production of the Swinger and the Custom is a typical example to highlight how CBS tried to reduce the production cost in the 1970s. The design and construction of both the Swinger and the Custom are arbitrary fabrications from a diverse range of available parts and materials in stock. The Swinger was built with the Fender Bass V or the Fender Musicmaster's body and the Fender Mustang's neck. Like the Swinger, the Custom was constructed with modified headstocks from the Electric XII and the other unused parts from the Mustang Swinger. We must notice the "modified" headstock from the Electric XII because its 12-string-neck is not appropriate on the Custom, which only installs six strings. To consume the unused Electric XII headstocks in the inventory, workers used veneers to cover six useless tuning key holes. They then screwed this modified headstock on the body of the Custom.

However, the unlimited cost reduction could not successfully create more value

from these new models. The sales of these two models were very disappointing. For example, only 300 to 600 Swingers were built, and the Custom was only released in 1969 and 1979 and phrased out in 1971. The failure of Swinger and Custom are two good examples to highlight why unlimited cost reduction will not earn more profits.

There are other unpopular designs made by CBS based on cost reduction that failed in the market. For example, in 1971, CBS adopted a three-bolt design to replace the old four-bolt style, through which "the neck/body joining screws were reduced in number from four to three" (Ibid 2012: 52). Again, using cost reduction principles, these changes were not popular in the market. Therefore, Fender's modern products also have four neck/body joining screws.

The cost reduction policy also resulted in the decline of quality control during the CBS period. In an interview, Dan Smith, the director of marketing for electric guitars at Fender in 1981, talked about his negative impression of CBS's factory management, which had violated the original principles established by Leo Fender and Forrest White. Furthermore, all his tasks focused on repairing the old, broken system:

> *The first time I met with Forrest white, he showed me a film, and also a bunch of pictures. Forrest was an industrial engineer who had come from Westinghouse or somewhere-he came along to Leo in the early days and helped him set up the factory. So Forrest showed me pictures of the factory, and that was exactly the way we ended up with it when we did it. So in between when Leo had it and CBS had it, somebody had really fucked it up.*

And badly. [18]

The second mistake CBS made was its incorrect marketing policy that resulted from its poor understanding of Fender's advantages in the market. After taking over the company, CBS ambitiously tried to invade Gibson's market, in which electric guitars were equipped with humbuckers rather than single-coil pickups. The release of the Thinline Telecaster in 1971 and the Starcaster in 1976—designed to compete with Gibson by installing two humbuckers on their body to replace the traditional, single-coil pickups—might highlight this intention but was finally in vain. CBS had failed to figure out its strengths and weaknesses because Fender's long-lived and best-sold guitars were all equipped with single-coil pickups.

Fender's guitars are good at making bright and crispy tones for country music, pop, rock, blues, and jazz players, such as Jimmy Bryant, Bob Dylan, Jim Campilongo, Eric Clapton, and Dick Dale. Fender's tones have significant differences from Gibson's thick, warm tone, which is appropriate for heavy metal or hard rock players, such as Slash, Jimmy Page, Randy Rhoads, Zakk Wylde, and Alex Lifeson. Finally, CBS's bravado, which resulted from the ignorance of its strengths and weaknesses, pleased neither Fender nor Gibson users and resulted in the denigration of its reputation in the market.

The first two reasons, the overemphasis on cost reduction and incorrect marketing policy, were related to CBS's wrong management policies in the domestic market. The

[18] Please see: https://reverb.com/news/interview-fender-visionary-dan-smith-on-how-to-turn-around-a-faltering-guitar-brand

third reason, the rise of international competitors, especially Japanese copyists, could be the only non-domestic reason to explain Fender's decline.

The birth of the electric guitar-making industry in Japan can be traced back to the early 1930s. The first electric guitar making brand, Guyatone Guitars (グヤトーン), was founded by Mitsuo Matsuki, who was a cabinet maker's apprentice. In the beginning, Mitsuo Matsuki's workshop was only a small woodworking shop focusing on furniture making. Still, he tried to build an electric guitar for his friend, Atsuo Kaneko, a Hawaiian and Spanish guitar player. So, in 1933, Mitsuo Matsuki created Guyatone Guitars to make electric guitars in Japan.

Traditional craftsmanship, prior experiences in the manufacturing industry, and cheap labor forces made Japan a strong competitor in the electric guitar market. Besides, Fender's characteristics, including its deskilled production and mass production, ironically become a weakness that was easily copied by Japanese competitors. From the early 1970s, Japanese guitar manufacturers, such as Kanda Shokai, Tokai Gakki, Yamano, and Ibanez, began to copy American manufacturers' designs. The rise of these well-crafted but cheap, copied guitars (lawsuit guitars)[19] quickly challenged American manufacturers' monopoly in domestic and global markets. Paul Stanley, the guitar player in KISS, a famous American rock band rising in the early 70s, has highly evaluated Japanese guitar manufacturers in an interview:

[19] Japanese guitar manufacturers began illegally copying American manufacturers' guitar models in the 1970s. Ibanez was the first Japanese guitar manufacturer accused by Gibson due to its tortious act in 1977. Therefore, these copied guitars imported from Japan and sold in the US are also addressed as lawsuit guitars. Figure 2 provides an example to show how Japanese manufacturers copied the US guitar builder's original guitar designs.

They (Japanese makers) obviously have the facilities to make anything… That's a lot more than can be said for America at the moment. Japan really is the country of the future." (Bacon 2012b:8)

These three factors—the overemphasis on cost reduction, incorrect marketing policies, and Japanese competitors' rise—resulted in a severe deficit in the 70s. To face the competition and survive, CBS was forced to take action to reform the whole organization and production. In 1981, John McLaren, the president of CBS, invited Bill Schultz, who had worked for YAMAHA, to be Fender's new president. Also, Dan Smith, who had worked in the development team of YAMAHA since 1977, was invited to be the director of marketing electric guitars at Fender.

How Can Bill Schultz Save Fender? The Invented Tradition of Vintage

The new team immediately adopted two policies to respond to the challenges from Japanese lawsuit guitars and the substandard factory management: (1), establishing Fender Japan, a new joint venture with Japanese guitar manufacturers in 1982, and (2) moving assembly lines from California to Mexico in 1987.

Establishing Fender Japan with Japanese guitar manufacturers, especially those copyists who built lawsuit guitars, had many advantages. First, Fender could cheaply make guitars in Japan by using those dexterous Japanese labor powers. Second, between October 1978 and April 1980, the exchange rate between USD and Japanese

Yen had sharply increased from 178.97 Yen to 256.9 Yen. This currency appreciation in the value of USD against the Japanese Yen made Fender USA believe that establishing a Japanese joint venture would be lucrative. Therefore, after the negotiations with several potential companies, in 1982, Fender Japan was born through cooperation with Kanda Shokai and Yamano Gakki. We must keep in mind that Kanda Shokai had established Greco in 1960 to sell "Greco Super Sound," which was copied from the Fender Stratocaster[20] (Figure 2).

It is also important to understand the complicated social networks between American brands and Japanese makers. For example, although Yamano Gakki was a partner of Fender Japan, he was also an establisher of Orville, a joint venture of Gibson in Japan, which was established in 1988 by both Gibson and Yamano. All guitar companies' connections between the United States and Japan express the complicated internationalization of production around the 80s.

[20] We also need to pay attention to the complicated social relations of production in Japan. Actually, Kanda Shokai did not directly produce guitars. Instead, manufacturing was subcontracted to Fujigen and Matsumoku.





Figure 2 Lawsuit Guitars Made by Japanese Copyist [21]

To make cheap guitars and prevent the domestic market from being invaded by lawsuit guitars, Fender USA established an overseas joint venture with local instrument distributors with social connections with skillful manufacturers. Therefore, guitars made by Fender Japan, including the maple-neck ’57 Stratocaster, ’57 Precision Bass, rosewood-fingerboard ’62 Strat, ’62 Precision, ’62 Jazz Bass, and ’52 Telecaster were only sold in the Japanese market (Bacon 2010:76).[22]

[21] Please see: http://www.rickguitars.net/grecostratse380.htm

[22] The cooperation with Japanese companies, including distributors and manufacturers, is a very complicated process through which a variety of projects were considered by both sides. Besides establishing a joint venture, Fender USA also established a budget brand, Fender Squier, to build cheap

The second response, just like that of other American manufacturing corporations, was to directly move their domestic assembly lines to other countries that were full of cheap labor powers, such as Mexico. In 1987, the Fender Mexico was created in Ensenada.[23] The productivity at Fender Mexico rose from 175 Fender Standard Stratocasters per day in 1992 to 600 instruments a day in 1995. In 1997, Fender Mexico's productivity was even higher than Fender USA in Corona: "By late 1997, Mexico would be assembling around 150,000 Fender Guitars a year, compared to some 85,000 at Corona, with a workforce of around 1,000 at the Mexico factory and 700 at Corona" (Bacon 2010:96).

These two policies, establishing Fender Japan and creating a new assembly line in Mexico, were very similar to other American manufacturers' experiences in the 70s and 80s. In other words, American manufacturers could reduce the cost of production by moving their domestic production lines out of the US and exploiting the cheap labor forces in developing countries, especially in East Asia. However, the exodus of assembly lines could explain the decline of manufacturing sectors in the United States,

guitars in the United States. Squier had been a string supplier to Fender before it was sold to Leo Fender in 1961. Since the 80s, to compete with cheap Japanese guitars, Squier has begun building Fender Squier Series, which are made with cheap lumber but based on the original designs and plans of Fender's classical models, especially the Stratocaster and the Telecaster. Interestingly, the making of Fender Squier Series had been finally authorized to Fujigen directly, not Fender Japan, in 1982 before the production lines were moved to Korea in 1988 due to the sharply strengthening of Japanese Yen from 259.98 to 1 USD in May 1985 to 121 to 1 USD in January 1988. Furthermore, the Squier series was made to fulfill the market in Europe in the 80s (Bacon 2012b:85). Therefore, the rise of Squier, the budget brand of Fender, is another case to highlight the internationalization of production in the electric guitar industry.

[23] Interestingly, the establishment of Fender Mexico in Ensenada resulted from the cooperation between Fujigen and Fender USA. Experts of Fujigen not only helped build a Mexican factory based on Fujigen's factory in Japan but also trained the workers at the Mexican factory (Bacon 2012a: 100). In other words, we may argue that the establishment of Fender Mexico also resulted from the internationalization of production in which the United States, Japan, and Mexico were involved.

rather than their possible transformation. In the next section, by reviewing Fender's stories under Bill Schultz's management after 1985, we may point out that Fender's rebirth in the late 80s was highly dependent on successfully establishing the domestic production line in California, especially the creation of the Fender Custom Shop. Furthermore, this Custom Shop is a sophisticated invention of tradition, which means an imaginative connection between Leo Fender's mass production policy and Bill Schultz's craft-oriented Custom Shop that helped to eliminate the dishonored history during the CBS period.

Because CBS Fender's products were not popular in the market, Bill Schultz and his team decided to rebuild Leo Fender's tradition before 1965. Their first work was to research how to build precisely just the same guitars as Leo Fender had made. To learn how Leo Fender built guitars, Dan Smith, the new director of marketing electric guitars, went to Illinois' instrument stores to buy several old Fender guitars, including a '57 P-Bass, a '60 Jazz Bass, and a '61 Stratocaster. That was not enough. Dan even took pictures and recorded details of other old Fender guitars in that instrument store:[24]

> *We were there on the mission to make sure we measured the stuff and got the data. We wanted to get it as close as we could. We took pickguards off, took pictures of pockets, tested paint, measured necks, all that kind of crap. And we left having bought perfect examples of each era, too. I remember we spent $5,600 on three guitars, which for Fender at the time was ludicrous. We went*

[24] Please see Dan Smith's interview: https://reverb.com/news/interview-fender-visionary-dan-smith-on-how-to-turn-around-a-faltering-guitar-brand

out and bought back our own product!

Also, we must keep in mind Fener Japan's contribution to this process of "back to the tradition." First, Schultz and Smith's previous working experiences at YAMAHA made them clearly understand the vital role that Japanese artisans might play on the road towards the reestablishment of Fender USA. When Tony Bacon interviewed Dan Smith about who came up with the idea of making Fenders in Japan, Smith's response indicated that it was both Bill Schultz and Roger Balmer (Fender's then head of marketing and sales) as well as him:

> *The original decision was a combination of Bill Schultz and Roger Balmer [Fender's then head of marketing and sales]. They were talking about that before I got there. When I got there, one of the first things I said to them was, "Look, you've got to go to Japan." We all had the same idea because we all came from the same area. But it was funny, when we got to Fender it was like everybody in Fender, except for a few people, lived inside this ivory tower. They had no idea what went on outside. No concept of what was going on out in the real world. So we'd tell this to people and they'd look at us as if we were nuts*[25].

The new management team clearly understood that working with Japanese

[25] Please see the interview of Dan Smith: https://reverb.com/news/interview-fender-visionary-dan-smith-on-how-to-turn-around-a-faltering-guitar-brand

competitors, despite the reluctance, would be the answer to rejuvenating Fender USA. However, ironically, most people working at Fender USA still insisted on their sense of superiority without acknowledging the changing market of electric guitars. Another reason that Fender USA had to enlist Japan's help was that the new management team only bought the names from CBS, including Fender, Rhodes, and Squier, and some guitar parts in stock. Still, the factory in Fullerton was not in the transaction package. Even the new factory was established in Corona, California. In 1986, the new factory's productivity was pretty low; it could only build "five guitars per day for the Vintage reissue series" (Bacon 2010: 84). Therefore, before the Corona factory was able to replace the old Fullerton factory, "most product [was] produced offshore" (Black and Molinaro 2001:108) and "every guitar in Fender's 1985 catalog was made in Japan" (Bacon 2012a:93). That is why Fender USA had to depend on the production line of Fender Japan and their subcontractor, Fujigen, especially when Fender USA tried to produce a new guitar model, Performer, which was designed by John Page, one of the founders of Fender's Custom Shop:

> *Fender had been working on a couple of radical guitars before the sale campaign. One was a John Page design, the Performer. It started life intended for US Production, but with nowhere to build it there, manufacturing was started at Fujigen in Japan (Bacon 2010: 82).*

According to this review, we may clearly understand that this "get back to the

tradition" is no more than a bricolage from a diverse range of resources available to Fender USA. For instance, Fender USA decided to make guitars following Leo Fender's original blueprints and specifications; however, Fender USA asked its Japanese partners to make guitars due to the lack of factories in the United States. Therefore, we may conclude that this "back to the tradition" is nothing but the international cooperation through which Japanese builders could complete Leo Fender's original designs.

John Page's working experience with Japanese guitar builders is the most compelling evidence to prove that the regeneration of Fender USA and the rise of the Fender Custom Shop is based on the global cooperation with Japanese luthiers. On November 26, 2010, John Page directly answered a question regarding the quality of Sugi Guitars' product on The Gear Page, one of the leading virtual communities and marketplace of guitars. The following passage is how John Page recalled his working experience with the owner of Sugi Guitars, Makoto Nick Sugimoto:

> *Nick Sugimoto, of Sugi Guitars, is an amazing engineer, builder and designer. He was the head of the Engineering Department at Fuji-Gen Gakki, one of the finest guitar factories in Japan. They made the Ibanez and Fender Japanese guitars for many years. Nick and I worked together on many projects while I was the head of Fender Guitar R&D and Custom Shop. He also worked side by side with all of the major Ibanez artists to develop their signature guitars. Nick and his staff are amazingly talented builders and*

make some killer instruments.[26]

Another unprecedented strategy was to launch the Custom Shop in Corona, California, in 1987. The rise of the Custom Shop was a critical factor to invent the tradition of Fender's products and history, rather than only relying on the tradition.

The Custom Shop is a new concept that is different from the assembly line created by Leo Fender and Forrest White in the 50s. Its basic idea is to build a "dream guitar" for any customer who orders a guitar from the Custom Shop with customers' unique specifications that were modified from Fender's classical models. Besides, customers could request any famous artisan on Fender's "Masterbuilt list" to build his/her dream guitar. In 1987, there were only two master builders at Custom Shop, John Page and Michael Stevens. Both were familiar with all classical models of Fender's products and able to modify the original models to fulfill customer's specifications. In order words, those master builders at the Custom Shop, who could build custom-ordered, "one-off" guitars,[27] must have had prior knowledge of Fender's products, as well as the ability to modify and innovate them.

The Custom Shop's products had three characteristics: one-off order, limited edition of the classical product, and catalog model (Bacon 2010:86). First, the advantage of a one-off order was that it could satisfy the customer's desire to have a

[26] Please see: https://www.thegearpage.net/board/index.php?threads/sugi-or-t-s.809491/

[27] Actually, building one-off guitars for individual customers was the original intention of the Custom Shop:
"Fender's Custom Shop was officially started at the Corona factory in California at the start of 1987. The intention at first was to make one-off guitars for individual customers." (Bacon 2012a:99)

dream guitar produced by his/her designated guitar builder or team. The second characteristic was that they were limited editions. According to the explanation on the Custom Shop's official website, "Each Custom Shop Limited Edition instrument is only available for a short time, which makes it eminently collectible and adds to its investment value."[28] Accordingly, the value of the limited edition is its rarity rather than its playability. The third characteristic is the general line of catalog models. It means that the Custom Shop will offer all classic models of Fender's products from the 1950s to the modern era for customers who are willing to order a guitar at the Custom Shop. Therefore, customers may ask luthiers to build a replica of any classical Fender model they want and the revised edition of the class model. For example, a customer may ask the Custom Shop's luthier to build a Precision Bass based upon the 1955 Precision Bass design but with a 22-fret neck, instead of the classical 20-fret design.

The Custom Shop also offers other specific services to customers. One of these services, which stresses the intention of inventing Fender's tradition, is the creation of the "relic guitar":

> *Our shrine to the heritage and legacy of those pioneers who made us what we are today. The Fender Custom Shop reached new heights of craftsmanship with its acclaimed Time Machine series—artfully "relic-ed" guitars and basses that revolutionized the entire concept of "reissue" instruments. The Custom Shop has since ventured even higher by crafting meticulous replicas*

[28] Please see: http://www.fendercustomshop.com/series/limited-edition/

using the same techniques and tooling used to create the originals all those years ago.[29]

In the photo of a "relic" (Figure 3), it seems that the "relic" service is actually to make your guitar look like a valuable antique through aging techniques. In other words, this artistry does nothing more than make it look like an "old Fender."



Figure 3. The Body of a "Relic" Fender Stratocaster

Ostensibly, the aging technology is another endeavor to return to tradition, and this is similar to Dan Smith's trip to buy back old Fender's product for copying the details of them. However, this "back to the tradition" actually obscures that Fender's authenticity is just a typical case of standardized production based on an assembly line rather than craft-oriented production. If we acknowledge that Leo Fender's production philosophy was "the cheaper, the better," we can further determine that Fender's real

[29] Please see: http://www.fendercustomshop.com/series/time-machine/

tradition is nothing but a de-skilled mass production strategy. The aging technology might make a “one-off” custom-ordered guitar look like an antique built by a master builder at the Custom Shop. Still, it is important to remember that this antique's origin is based on the tradition of mass production rather than craftsmanship.

Interestingly, the creation of the Fender Custom Shop is a policy full of conflict with Leo Fender’s original philosophy. Leo Fender’s constant considerations are “musicians’ requirements and his application of a mass-production solution” (Bacon 2010:14), but the Custom Shop’s concern is being a one-off, custom-ordered, and expensive boutique. Leo Fender’s production perspective is the cheaper, the simpler, the better, but the Custom Shop was passionately devoted to building modified and expensive guitars. Yet, maybe the most ironic difference was the idea of “vintage.” When Leo Fender designed and made guitars, the quality of tone was the least important factor in his design, but this unclear, clamorous concept became an attractive factor in enhancing the value of the Custom Shop’s one-off, limited edition, and modified guitars.

Therefore, we might question whether Bill Schultz and his team want to get back the “real” tradition of Leo Fender. Furthermore, we should even ask whether there is a “real” tradition of Leo Fender. Although Bill Schultz’s team strived to return to Fender’s tradition, their production strategies, especially the establishment of the Custom Shop, based on the craft-oriented mode of production, did not conform to Leo Fender’s mass production principles.

Additionally, we must keep in mind that this “getting back to the tradition” could

not be completed without Japanese partners' participation. If getting back to tradition means reduplicating Leo Fender's production mode again, why should Fender USA need a Japanese partner's assistance? How could Fender persuade consumers that guitars made in Japan could appropriately represent the cultural value of this "American icon" (Millard 2004)? In this highly globalized epoch, any commodity can be made through the international division of labor and complicated global commodity chains. Maybe the only difference between Fender's electric guitar and other mass-production commodities, such as shoes, computers, cell phones, and cars, is its transition from mass production to craft-made production through inventing its tradition with its Japanese partners. Fender's business model offers us an alternative to critically think about how to make manufacturing great again in the United States; however, calling back mass production factories may not be the only answer. Instead, adding uncountably cultural value to an industrial product through inventing its tradition seems another feasible solution.

In the next section, I will further discuss how this invented tradition, despite a deviation from Leo Fender's original production model, may create value for Leo Fender's popular models by cooperating with guitar players instead of exploiting workers.

Who Made Fender's Value? Guitar Heroes Plus Master Builders

> *I think Jimi Hendrix caused more Stratocasters to be sold than all the Fender salesmen put together*—Dale Hyatt, a longtime Fender salesman. *(Bacon*

2010:46)

Although I cannot find reliable sales records to prove or disprove Dale Hyatt's observation, the review of Fender's history may indirectly indicate who might make and increase the value of Fender Guitars. The answer could be combining both guitar players and craft artisans, especially those who created incredible modern music with Fender guitars in the 60s.

In an article published on Fender's official website, The History of the Stratocaster: The 1960s,[30] through a historical review of Stratocaster's history in the 60s, the author pointed out how the rise of modern music in the 60s resulted in the popularity of the Fender Stratocaster. From the rise of Dick Dale's surf music in the early 60s, Bob Dylan in the mid-60s, as well as Jimi Hendrix, Eric Clapton, and The Beatles in the late 60s, the success of these guitar heroes in their music career undoubtedly made them also become the best endorsers of the Fender Stratocaster. Appendix I, the Fender Timeline, shows that Fender had cooperated with diverse, influential players who used Fender's guitars almost every year.

Indeed, this timeline will make Marxist sociologists uncomfortable because it forces us to face an embarrassing fact: early consumers were only interested in who played the guitar on stage, rather than who built the guitar. We know who was singing Johnny B. Goode with a white Fender Stratocaster on stage during a live gig in Berkeley, California, in 1970, but it is almost impossible to determine who built this guitar used

[30] Please see: https://www.fender.com/articles/gear/the-history-of-the-stratocaster-the-1960s.

by the guitar hero. Guitar workers' labor was finally shown as a set of serial numbers printed on the neck, which could help consumers determine what year the guitar was built, but that was the only function of the serial numbers. These depersonalized numbers concealed workers' names and faces and eliminated workers' contributions to this industry.

The guitar auction might be another example to illuminate how a guitar hero's name might ridiculously raise the guitar's price if he/she had played it before. A Fender Stratocaster that had been played by Eric Clapton sold for $959,500 in 2004. Nine years later, this record was broken by a Stratocaster, which was played by Bob Dylan at the 1965 Newport Folk Festival, that sold for $964,000 in 2013. How can we explain why a Stratocaster that sold for less than $1,000 in the 1960s can be sold for around one million in the 21st Century? Is this difference in price made by a worker's surplus labor or a guitar hero's sacred aura?

We do not need to quickly search for the lost meaning of labor because the rise of the Custom Shop in 1987, at first, led to a different profit model—a combination of both guitar heroes and craft artisans—rather than players themselves. The apparent change was the appearance of the artisan's name in the guitar catalogs. In 1988, George Blanda and Michael Steven, who were master builders at the Custom Shop, designed and built Eric Clapton's signature model. Furthermore, George Blanda also made another signature model for heavy metal guitar player Yngwie Malmsteen.[31] In the

[31] Interestingly, neither Eric Clapton nor Yngwie Malmsteen is American. The former is an English guitar player; the latter is a Swedish guitarist. How can we explain why the electric guitar industry, seen as an "American icon," should be endorsed by foreign players in the 80s? Maybe the answer to this question is similar to the question of why the regeneration of Fender USA should depend

1990s, the Custom Shop even released signature models for dead guitarists. In 1996, Larry Books, another master builder at Custom Shop, designed a new Fender Jag-Stang for Curt Kobain, a guitarist who had committed suicide in 1994. In addition, artisans at the Custom Shop would team up to make guitars. In 1997, several builders worked together to build Jimi Hendrix's signature Stratocaster. In 1999, the Custom Shop built Jaco Pastorius's signature JazzMaster. We can quickly determine the builder's name through the Custom Shop's catalog or by searching who made a signature model for what players.

Second, the combination of guitarists and artisans stress how the invention of tradition works. This invention of tradition depends on combining the selected tradition and the modern need in the market in the contemporary context. Therefore, the Custom Shop intentionally picked up the useful element from Leo Fender's legends—only his popular four models—then mixed it up with the rising needs of one-off, custom-ordered guitars in the market. By modifying Leo Fender's models, artisans at the Custom Shop redefined "vintage," which means they upgraded models based on Leo Fender's mass production designs and guitar heroes' performances. If someone has one million dollars, he or she can buy Eric Clapton's or Bob Dylan's Fender guitar in an auction. If someone is not so rich, he or she can spend $7,000 and purchase a "vintage" built by John Cruz with his signature on the headstock and a warranty. No matter what choice, either a one-million-dollar guitar or a 7,000 dollar one, the buyer will have a signature to prove the guitar is a real "vintage."

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on Fender Japan's help. Maybe we cannot answer these two questions easily without considering the global context of the guitar and music industry in the 80s.

Besides the invention of tradition, invention against tradition might be another strategy to add value to a guitar. In the second part of this chapter, I will review Taylor Guitars Company's history to discuss how invention against tradition may be another strategy to add value to a guitar.

The Invention against Tradition: How Could a Guitar Shop Look Like a Terminator's Plant in California

In the movie Terminator, one of the most popular science fiction films, the final scene of this movie depicts both Kyle and Sarah illegally intruding in a factory and activating the robots to confuse the terminator. In this scene, we can see how robots, maybe including some CNC machines, may automatically move under the control of computerized programming. In this science fiction film, I learned that a robot, or a cyborg with artificial intelligence, is nothing more than a killing machine.

Richard Hoover, the owner of Santa Cruz Guitar Company, is my first informant in this dissertation research and the critical person who taught me that robots could be adapted to build guitars instead of killing people. Even now, I still cannot help but wonder whether I was visiting a terminator factory when he showed me how a CNC machine could automatically, precisely, and quickly carve the fret slots on a fingerboard.

Actually, Santa Cruz Guitar Company is not the first guitar company to use a CNC machine. In 1989, Bob Taylor, the founder of Taylor Guitars, was the first acoustic guitar builder who ordered a CNC machine from Fadal and used it to make acoustic guitars. Despite being a heresy in the conservative community of guitar luthiers, the adoption of CNC is a feasible and useful strategy to combine the creativity of the

craft and the precision of a machine in the production process.

The official website of Taylor Guitars shows how Taylor Guitars acknowledged the importance of advanced technology, precision craftsmanship, and its potential contribution to the guitar-making industry:

> *Bob Taylor's pioneering use of modern tooling and technology has had an industry-leading impact on virtually every guitar-making process aspect. By embracing computer-controlled milling, laser-cutting, robotic finish spraying and buffing, and other cutting-edge manufacturing techniques, Taylor has elevated craftsmanship to a level of impeccable precision and detail. The benefits include consistently high quality and the ability to add striking aesthetic refinements to a guitar that could never be produced using traditional methods.*[32]

However, we may continue asking the following questions. How did the founder of Taylor Guitars learn guitar-making skills at an early age? How did Taylor Guitars gradually become the pioneer of using advanced technology? Who plays a vital role in making Taylor Guitars the pioneer and under what social context? To answer these questions, we will review the history of Taylor from the beginning in the 1970s and try to determine how the initial adoption of advanced technology in the guitar-making industry is neither taken for granted by nor a smart decision of the guitar shop owner.

[32] Please see: https://www.taylorguitars.com/guitars/innovations.

Instead, it is a contingent but consecutive process through which Taylor Guitars finally overcame the predicament and created the specific trajectory based on the invention against tradition. This development process could be divided into three stages: (1) the early stage of skill formation in a coop, (2) the predicament between craft and mass production, and (3) the combination of craft and technology.

The Skill Formation in a Hippie-like Coop

Despite making a guitar by himself at an early age, Bob Taylor's professional guitar-making biography started in 1972, and this was also his first time working for American Dream, "a hippie-spirited communal place" (Gerken 2015:9) in El Cajon, California.

American Dream was a small guitar shop funded by Gene and Sam Radding. In the beginning, Gene Radding opened a retail shop, American Dream Music, in San Diego in the mid-1960s. Sam Radding, Gene's brother and partner who worked in the shop, finally split up the shop because Sam found out that he was not interested in the retail shop business. Therefore, Sam took on two partners, Bob Morris and Lee Fulmar, and began his shop, American Dream Musical Instrument Manufacturing.

American Dream Musical Instrument Manufacturing is not a typical mass-production factory, such as Fender, nor a European model (i.e., a traditional workshop using apprenticeship). In the interview by NAMM (National Association of Music Merchants), Sam Radding clearly defined American Dream as a co-op:

It was sort of…a co-op, although people told me you could have not done that. It's legally you can't do that kind of thing. And so… yeah, I was probably a boss, but everybody set up their time, and you know, put their effort into it, and it was… there was like a co-op, just a group of people that were equally interested in building and repairing musical instruments. And we just tried to make it work.[33]

As a co-op, American Dream should not be seen as a modern manufacturing factory. There was no scientific management in this shop, much less a rational assembly line. Despite hiring people, Sam Radding was not so much a boss as an experienced master in this shop. Under his leadership, everyone could set up their schedule. Sometimes Sam Radding would assign a specific project to a person, but everyone was an independent craftsman. As a hippie movement participant, Sam Radding never tried to make a disciplined guitar factory. In this co-op, everyone worked together and learned together. Furthermore, at least once a month, members held a barbecue party for people to eat, drink, and play guitars. It was not only members at American Dream who participated in this BBQ but also neighbors close to this co-op, including Matt Guzzetta, a bike engine designer, who would help Bob Taylor learn how to use CNC in the late 80s.

We must pay attention to the relationship between Sam Radding's management and the craftsmanship at American Dream. His management strategy, assigning a

[33] Please see: https://www.namm.org/library/oral-history/sam-radding.

specific order to a particular member but allowing people to set up their independent schedule, encouraged all people to be an independent guitar builder who could make a guitar from scratch to completion, including designing, woodworking, painting, assembling, and the final setup work. Undoubtedly, this learning experience at American Dream gave Bob Taylor a chance to learn all the required skills and knowledge about guitar making. So, he evaluated American Dream as an incubator, which brought "many of the innovations that revolutionized American guitar building in the 1980s and 1990s" (Simmons 2003:43).

Bob Taylor not only learned skills and experiences at American Dream but also created his social connections here, such as Kurt Listug, his lifelong business partner, and Steve Schemmer, one of the original three founders of Taylor Guitars. Later, three of them would buy American Dream and begin their guitar-making business.

The Predicament between Craft and Batch Production

In 1974, Bob Taylor, Kurt Listug, and Steve Schemmer spent 10,000 dollars buying American Dream from Sam Radding and renamed it Westland Music. Still, all agreed that Taylor would be an excellent brand name typed on the top of headstock because Taylor sounded like a professional guitar name. The first ten years of Taylor Guitars, from 1974 to 1983, were also the most challenging ten years for Bob Taylor and his partners. To survive in the market, they tried several different strategies to improve their sales, quality of products, management, designs, and skills. In this section, I will review how they strived to survive in their first ten years.

As a fledgling guitar maker, Bob Taylor, the leading designer and builder at Westland Music, spent much of his time asking those experienced members at American Dreams how to improve the quality of the products. John Carruthers, a former repair technician at Westland, was one of the essential guitar makers to whom Bob Taylor asked questions. Based on his experiences, John Carruthers generously gave Bob Taylor many valuable suggestions, including why installing frets on a neck after it was on the guitar would be better. When being asked about John Carruthers, Bob Taylor very clearly acknowledged John Carruthers' contribution to his skill formation at an early stage:

> *John helped me immensely by pointing out some techniques and skills he'd acquired from doing repair work. The guitars got a little better after I applied some of the things I learned from John. He was a little bigger than life to me at the time. I was still only twenty-one years old and he was way more experienced and knowledgeable about these things than I was at the time. I couldn't deny how impressed I was when I'd go into his shop and see road cases from every famous touring band on the music scene. This guy really had the clientele and I listened when he spoke." (Simmons 2003:56)*

Bob Taylor searched for help from not only employees at Westland but also outside guitar builders. Compared to other manufacturing sectors focusing on protecting their esoteric skills, such as semiconductors, cell phones, or other high-tech

manufacturing, the guitar-making industry is a relatively friendly and open-minded industry to rookies. Besides, many guitar builders are used to having an open house day weekly or monthly on their regular schedule. If someone makes an appointment, he or she will have a chance to visit the shop and ask them any questions about how they build guitars. There are two luthiers, and Augie LoPrinzi, who gave Bob Taylor beneficial suggestions and helped Bob Taylor improve production quality.

In the NAMM Show of 1977, Bob Taylor met Jean Larrivée, a Canadian luthier, just like John Caruthers, who explained to Bob Taylor why frets should be installed on a neck that was already fixed on a body. Moreover, Jean Larrivée generously shared with Bob Taylor how to use soft fret wire and explained its advantages:

> *Hard fret wire required more pounding to seat firmly, which made it difficult to install fretboards that were already attached to the relatively delicate guitar body, which could get damaged by the shocks caused by the hammer blows. But softer wire went into the fret slots more easily and the process of pounding the wire into the fretboard actually made it more durable, a process that was known as work hardening (Simmons 2003:68).*

Jean Larrivée told Bob Taylor the advantages of soft fret wire and shared with Bob Taylor how he could purchase the materials from a soft fret wire maker in the Netherlands from whom Jean Larrivée ordered frets. This communication about installing frets illustrates the advantages of social networking with other guitar builders.

An experienced guitar builder can explain how to improve one's skills and the quality of products and share useful information about where to purchase the required materials. Jean Larrivée, as a full-fledged guitar builder, helped Bob Taylor learn new experiences and establish new business relationships with guitar part suppliers. These lessons and business information are indispensable for a young guitar builder when they have just begun their business.

Augie LoPrinzi was another experienced guitar builder who gave Bob Taylor useful suggestions. Between 1976 and 1979, both Augie LoPrinzi and Bob Taylor sold their guitars through Rothchild Musical Instruments (RMI), a distribution dealer that helped small guitar builders or brands sell their guitars nationwide.[34] Despite a short period of business cooperation between Taylor Guitars and RMI, this social connection based upon the distribution dealer gave Bob Taylor another chance to meet Augie LoPrinzi. The most important suggestion Augie LoPrinze gave to Bob Taylor was how to improve the quality of products, rather than only enhancing their efficiency. From Augie LoPrinze's perspective, which was very different from Bob Taylor's initial idea, batch production might not be a good idea for small producers.

Batch production is a production method through which guitar makers will create

[34] Paul Rothchild, the founder of Rothchild Musical Instruments, had worked in many different positions in the music industry, including as the Artist and Repertoire (A&R) record producer, before he created Rothchild Musical Instruments. He is well known as a successful record producer who produced the first six albums of The Doors and Janis Joplin's Pearl; however, in this dissertation research, Paul Rothchild's contribution to the music industry is to create Rothchild Musical Instruments, which was created to gather many small instrument producers and help them sell their instruments on the market. In 1976, Bob Taylor was approached by Paul Rothchild and became a member of RMI. As an exclusive distributor, BMI would buy a set number of guitars from Taylor Guitars and sell them on the retail market. However, RMI was unable to sell out all the guitars they got from Taylor. The low sales finally resulted in the termination of cooperation on January 27, 1979.

a small number of guitars in a short time frame. If a batch includes ten guitars, it means that guitar makers will make ten guitars simultaneously. This mode of production was seemingly appropriate to Bob Taylor in the early stage because he did not need to create an assembly line. After all, Taylor Guitars was unable to sell so many guitars on the market. Batch production meant that they could make ten bridges in a batch, then move on to make ten necks for these ten bridges, and again move them to the next step until the fabrication and the final setup work. Batch production is more efficient than one-at-a-time production; however, it also meant that if any step of the production procedure was wrong, the whole batch of guitars would have the same problem. For example, if a worker uses the wrong wood glue to bond the neck and body together, the whole batch of guitars had to be taken off the necks and glued again. In 1977, Bob Taylor hired 11 workers to make guitars in batch production, and their production goal was to make a batch of 10 to 12 guitars weekly. However, mistakes resulted in correction and repairs that seriously delayed the production, so it was tough to reach the original production goal.

After the NAMM Show in 1978, Augie LoPrinze explained to Bob Taylor why batch production has disadvantages and invited Bob Taylor to visit his workshop. In Augie LoPrinze's shop, he showed Bob Taylor why making one guitar at a time, despite being counterintuitive, would be more efficient than batch production. In recalling the trip, Bob Taylor noted that was obviously an eye-opening experience that changed his ideas about how to make guitars efficiently:

When I got back to San Diego, I made my own versions of them. But more importantly, Augie told me how to solve my production problem. While I was there he mentioned that he made his guitars "one at a time." In other words, every day he'd set up jigs and make the parts he needed for that guitar that day. I argued with him saying that it was more efficient to set up the jigs once and make all the parts for a batch at that time…he said, "Bob, which would you rather have, one done guitar or ten half-done guitars?" It only took a second for me to get the idea, and I immediately saw this idea was the way to help solve many of the problems that were plaguing us, from the erratic cash flow to the training of new craftsmen (Simmons 2003:71).

During this trip, Bob Taylor learned two useful lessons from an experienced luthier: the importance of cash flow to a small business owner and the definition of craftsmanship. The advantage of batch production, which was very similar to mass production, is to simplify the production procedure. It was not necessary to reset a machine to make the next guitar. Instead, after setting up the device, one can make a batch of parts, then move them to the next workstation. However, if the workers are not trained very well and make a mistake at any step, it will effortlessly ruin the whole batch of products.

Additionally, compared to this risk, making only one guitar at one time would ensure the quality of the guitar and that it would sell quickly on the market. Making guitars to earn money at market, rather than making guitars more quickly but being

unable to sell them, would be more lucrative. Moreover, making one guitar at one time meant that fewer unskilled workers were required. Taylor Guitars needed just a few but adroit luthiers who could command the whole production procedure, just like the definition of craft in Chapter Two.

Therefore, Bob Taylor made a big decision to lay off all 11 workers at the end of 1978, and only Steve Schemmer, Kurt Kistug, and Bob Taylor remained in the company. Like the beginning of Westland Music, Bob Taylor made guitars, Steve Schemmer took the responsibility of painting and finishing them, and Kurt Listug marketed and sold them. This change directly resulted in the decline of the annual production, from 449 guitars in 1978 to 400 in 1979, and 100 in 1980.

The dramatic decline of the annual production in 1980 could be seen as one of the most significant challenges that Taylor Guitars had to face. One of the reasons for this decline was undoubtedly the change of the whole music scene, including the rise of disco music in the 70s, punk rock in the early 80s, and new electronic music instruments, for example, the synthesizer. All these changes challenged the position of the acoustic guitar in the musical instrument market. In addition, the rise of MTV channels in 1981 was another structural factor that increased the popularity of musicians who played synthesizers, such as Duran Duran, Pet Shop Boys, Gary Newman, and Thomas Dolby. The declining sales of Martin Guitars, another traditional acoustic guitar brand in the US, helps describe this challenging period for acoustic guitar makers due to the changes in the music industry and audience preference.

YEAR	D-18	D-28	D-35	D-45
1975	3,069	4,996	6,260	192
1976	2,341	4,056	5,388	256
1977	1,454	2,077	3,522	76
1978	774	2,250	1,975	40
1979	1,717	3,027	2,750	291
1980	1,093	2,316	1,734	266
1981	535	1,484	1,124	88
1982	281	851	599	45
1983	400	1,250	1,045	74
1984	224	743	596	80
1985	246	916	622	78
1986	199	810	572	84
1987	258	825	772	111
1988	306	990	696	111
1989	363	952	800	89

Table 4-1. Sales of Four Models of Martin Guitars between 1975 and 1989

Resource: Martin Guitars: A Technical Reference (Johnson and Boak 2009)

Table 1 shows the dramatic decline in sales in 1981. These four popular Martin guitar models experienced around a 40% drop in sales that year and could never reach the peak again. However, compared to Martin's persistent decline in sales, Taylor's

decline only happened between 1980 and 1982. In 1983, Taylor's production returned to 400 guitars a year and increased later every year. Table 2 illustrates this surprising restoration of production.

YEAR	
1977	467
1978	433
1979	400
1980	100
1981	270
1982	281
1983	494
1984	761
1985	682
1986	890
1987	1203
1988	1850
1989	2239
1990	2427

Table 4-2. Sales of Taylor Guitars between 1977 and 1989.

Resource: The Taylor guitar Book: 40 Years of Great American Flattops (Gerken 2015)

Taylor and Martin's comparison highlights that Taylor could make some decisions and strategies to get rid of the acoustic guitar market's recession in the 80s, and those strategies worked. Therefore, we must describe how Taylor matured during this challenging time in the 80s and what they did for their growth. In fact, to survive in the recessive market, Taylor dauntlessly adopted several innovative approaches to turn the whole conservative acoustic guitar-making industry upside down, including their return of the craft, the creative marketing strategy with players, and the adaptation of new technology.

The Combination of Craft and Technology

The long-time contradiction existing among the three founders of Taylor Guitars finally resulted in the decision made by both Bob Taylor and Kurt Listug to kick out Steve Schemmer in 1983. The most crucial reason was Steve Schemmer's apathetic attitude and low efficiency. Both Bob Taylor and Kurt Listug spent $30,000 to buy out Steve Schemmer's share, and Westland Music was renamed Taylor-Listug, Inc in the same year. However, the first problem they had to face was who would replace Steve Schemmer to do the finishing work. In other words, they had to rebuild the entire team to facilitate production.

To rebuild the team, they rehired old members that had left during the Westland Music period. They invited Tim Luranc, the former luthier in the American Dream period, to come back and replace Steve Schemmer's position. Besides, they also asked

Larry Breedlove, another old guitar maker in the American Dream period, to be a new guitar designer. These two ex-employees' return immediately resulted in the team's lively chemistry because they were familiar with how Taylor guitars were made and did not need to spend too much time adapting.

The reunion of this new team with its old members could not have been completed if they had not adopted a flexible employment system. For example, Tim Luranc was initially unwilling to return because he had an excellent job at a banjo shop managed by Geoff Stelling. In his oral interview at NAMM, Tim Luranc recalled the comparison between Geoff Stelling's banjo business and Taylor Guitars:

> *And I was living in Ocean Beach at that time, he came back down and asked me if I wanted to work for them. I told them no, because I go by shop once more, this is before I was working for Stelling, so that must be about one year after, 75 I guessed. And I was… didn't see anything they're making it. I was being by the shop, it didn't look like it's could make it. So, I said I didn't want to start new again and be like a… you know… which… would [have] happened, no doubt. So, at that time, the banjo things for Greg and Geoff was much profitable. Geoff has orders, has money, and business sense. And he was envied by Rob and Kurt, because he had payroll, he had vacations, we had medical insurance and was a real business. And we really make money, so they would like… "Wow, how would you do that?" You know. So, but I would stand in touch and they would like me to make guitars over there, I*

build guitars to pay for the birth of my son…[35]

To earn more money for his son, Tim Luranc received a part-time position initially, but he quickly transferred to a full-time job because Bob Taylor wanted to pay him $400 a week. His career aimed to fill the vacancy that Steve Schemmer left and to train young luthiers how to finish a guitar. Therefore, the return of Tim Luranc was the first step to rebuilding the production team after buying out Steve Schemmer's share.

Second, Bob Taylor and Kurt Listug hired Larry Breedlove, another former luthier at American Dream, to be a guitar designer at Taylor Guitars. The coming of Larry Breedlove, undoubtedly, instilled many different thoughts and ideas of guitar design in developing new models in the 80s. His innovative ideas contributed to many new models or guitar parts, including the K12c and blue guitar released in 1984, the A-10 released in 1985, and the first acoustic guitar bridge made by a CNC machine. In a word, Tim Luranc and Larry Breedlove's return completed the new team's reconstruction and facilitated the production in the 80s. After getting through the frequent turnover of personnel in their first ten years, Taylor Guitars now had a constant team to cover all the required production procedures, including designing, making, painting, and marketing.

We may now review the new products developed by this team for this unfriendly market in the 80s. We will mostly focus on craft-made and custom-ordered models because combining these two factors may highlight how the value of a craft-made

[35] Please see: https://www.namm.org/library/oral-history/tim-luranc

guitar could be increased by cooperating with guitar builders and players.

At the NAMM Show in January 1984, Taylor Guitars released several new models different from traditional models with dreadnought and jumbo bodies, including models 512 and 812. Later in the same year, Model 612, a newly designed body made with maple, and 712, a new body made with rosewood, were released. In addition, they also make K12. A new model had a spruce top and a koa back and sides. All these guitars shared a common feature: customers had a custom option if they wanted to have cutaway on the guitar body, which meant that players would be more comfortable playing on the frets behind the twelfth fret.

The making of Purple Jumbo, a custom-ordered colored guitar for Price, was another successful case for Taylor Guitars to gain a reputation as an innovative brand in the acoustic guitar industry. Actually, Taylor received many requests for building colored guitars. Glenn Wetterlund, a dealer of Taylor working at Podium Music in Minneapolis, was one of these customers who also had a relationship with Prince. Meanwhile, Prince had just completed his movie Purple Rain and his album of the same name and was working on his new recording project in which he wanted to use a jumbo 12-string guitar. Prince and his team were unable to find an appropriate guitar to fulfill the need, so they asked Glenn Wetterlund. Glenn Wetterlund suggested that Bob Taylor make an exclusive purple, jumbo 12-string based on Prince's specifications and to sell the guitar to Prince. Both Bob Taylor and Kurt Listug believed that it was a good idea, and Bob Taylor spent a short time building a purple, jumbo 12-string. Despite Prince's appreciation of this custom-ordered guitar, audiences did not know that this guitar was

a product made by Taylor because Prince refused to have Taylor's logo on the top of the guitar headstock. Maybe this was not a bad thing to Taylor because this anonymous guitar inspired more discussions and many guitar players wanted to know who built it.

The purple, jumbo 12-string's success highlights a rising model of marketing strategy, which emphasizes cooperation among builders, dealers, and players. In this case, Prince played a role in using the guitar made by Bob Taylor and his team and promoting it on MTV or other mass media outlets to attract millions of viewers. Glenn Wetterlund, a local dealer of Taylor in Minneapolis, took the responsibility to recommend Taylor's guitar to Prince, his local customer in Minneapolis. Of course, we cannot overlook the contribution of Taylor's production team, including the production of Bob Taylor, the excellent finishing work of Larry Breedlove along the edge of the soundhole, and Kurt Listug's marketing and promotion.

The success of the purple jumbo is also a great lesson about the importance of social networks among guitar makers, dealers, and players. Therefore, the next step was how to reproduce this successful experience to promote Taylor Guitars. The cooperation with Chris Proctor was another successful example to make Taylor more popular on the market in the 80s.

Chris Proctor was the first prize winner in 1982 at the National Fingerpicking Championship and knew Bob Taylor at Chicago's NAMM Show in 1983. After trying Taylor's guitar, Chris Proctor had a profound impression of Taylor's playability, so he flew to California to visit Taylor's shop and to discuss the possibility of Bob Taylor building a guitar to fulfill his specific needs. During the 80s, the most popular guitar

shapes were the dreadnought or jumbo with narrower fretboards. These guitars were very playable with a flatpick but not friendly for a fingerstyle player, so Chris Proctor asked Bob Taylor to build a guitar to meet the needs of fingerstyle players like him.

This request directly resulted in the design and creation of K12c, an exclusive guitar for fingerstyle players. K12c had a smaller body, a wider neck, a compensated saddle, a lower-than-normal nut, koa back and sides, spruce top guitar with a cutaway, and one 7/8-inch-wide fretboard. Furthermore, the quality of sound also fulfilled Chris Proctor's expectation of a guitar with a well-balanced bass and treble. In a word, K12c was a satisfactory guitar to Chris Proctor.

Another collaboration was producing the 801c with Harvey Reid, another National Fingerpicking Championship winner. Like Chris Proctor, Harvey Reid positively evaluated the quality and playability of Taylor's product.

> *I liked Bob Taylor's philosophy that a guitar that plays well and plays in tune may be more valuable than one that just sounds good… I found I could play things on a Taylor that I couldn't play on other instruments. Larry Breedlove was hand-caving those necks, and I think he made some of the best necks I ever played (Simmons 2003:132) .*

If both Chris Proctor and Harvey Reid just used Taylor's products, they would only play an endorser role. However, they actually did more than an endorser. They participated in the guitar workshop to promote Taylor's guitars. This very creative idea

made local players understand Taylor's guitars' characteristics and resulted from a conversation between Chris Proctor, Kurt Listug, and Bob Taylor. Proctor recalled the following:

> *I had talked with Kurt and Bob before they made the smaller guitar… I remember saying that this would be a viable guitar, and not just for me. I said there was no guitar out there for fingerstyle players; no guitar for people who play sitting down; no guitar for classical players who want a steel-string; no guitar for a woman who doesn't want to wrestle with a dreadnought or a jumbo. I became a spokesperson for Taylors in general and the grand concert model in particular (Simmons 2003:132).*

This conversation stresses the importance of the guitar workshop because only players can appropriately introduce the strengths and characteristics to other players. In the workshop with the audience, the endorser may publicly showcase the functions and playability of the guitar that he/she is playing. Moreover, the creation of the guitar workshop may be seen as a small instrument trade show at the local level, just like the NAMM Show at the national level. Participants will have a chance to communicate with the players and dealers directly. The more information that consumers may have about a guitar, the more interested they would be in buying one for themselves.

Therefore, Proctor and Reid soon began participating in workshops at various Taylor dealers across the country. Reid, who lived in New Hampshire, covered the

eastern part of the country, and Proctor, who lived in Utah, covered the west. If Prince playing Taylor's purple jumbo on MTV is the attack from the air force, guitar workshops covering the entire country may be seen as a war of position on the ground. This combination successfully promoted the advantages of Taylor Guitars and increased its products' popularity in the 80s.

CNC is a computer-controlled cutting machine through which the mounted router and the blade will automatically cut or drill the materials put on this CNC machine under controls set by the programmed machine. In other words, CNC could be seen as a robot that can be driven by programmed codes then automatically work. The essential characteristic of CNC is its accuracy and consistency.

At first, all robot's actions are controlled by programmed codes, so the robot can work accurately without making any mistakes, as long as the original setting of the programmed codes is correct. If the programmed codes ask the robot arm to cut the truss rod slot 0.375" deep, the robot arm will accurately complete the cutting work without any errors. We may conclude that CNC is the first machine to reach the perfect combination of mental labor and manual labor because CNC can entirely replace manual labor and complete the work under the instruction without any misses. If we observe an inexperienced artisan, we can quickly figure out how difficult it is to complete craftwork totally under the original design; humans will make mistakes, but the machine never will.

Second, CNC, like other machines, will never be exhausted. We can expect that the pickup cavity on the top of the 101st guitar cut by CNC will be consistent with the

previous 100 guitars in terms of their size, depth, width, length, and position. This consistency is the strength of the machinery and far superior to the labor of humans, who will be tired, distracted, and need rest to reproduce the labor power after a period of working.

The invention of CNC was revolutionary because the adoption of CNC could fill in the gap between an adroit artisan and an inexperienced apprentice. The use of the machine, regardless of its type or power, could only replace physical labor, but not mental labor or experience. That is why an experienced artisan will be more likely to build a better guitar than an apprentice, who has no idea to judge what tool should be used and what the next step should be. However, the use of CNC may eliminate the importance of experience because it will never make a mistake, and it will consistently make all products.

Taylor Guitars was the first acoustic guitar manufacturer to adopt CNC to make guitars in the late 80s. In this section, I will review how Taylor Guitars learned the advantages of CNC under the specific social context and the impacts Taylor received from using CNC.

Using CNC to make guitars at Taylor Guitars could be attributed to the introduction of two guitar makers, Tom Anderson and Dave Schecter. Tom Anderson was an electric guitar maker who met Bob Taylor in a guitar trade show and was interested in Bob Taylor's shop. Therefore, he made an appointment with Bob Taylor, visited Taylor Guitars, and learned how it built acoustic guitars. When Tom Anderson saw how Taylor's crew cut frets, he told Bob Taylor how he used Fadal's computerized

mill to do the same work. Taylor was quickly intrigued by this machine and decided to visit Tom Anderson's shop three days later to learn how it worked and observe this Fadal mill cut frets.

Meanwhile, Tom Anderson told Bob Taylor that he learned about CNC from his friend, Dave Schecter,[36] who had just sold his guitar shop and worked for Fadal. He shared his knowledge of CNC with Tom Anderson, who was sure that this machine could make electric guitars. After visiting Tom Anderson's shop, Bob Taylor also learned how powerful CNC was and decided to use it to build Taylor's guitars.

The use of CNC at Taylor Guitars tells us more about the relationship between the guitar-making industry and advanced technology. Compared to the electric guitar-making industry, acoustic guitar builders are more likely to insist on the traditional definition of craft-made (i.e., being hand made through hand tools, such as chisel and file). Only under very few circumstances, such as cutting and shaping a piece of wood to build a neck, would some indispensable power tools, such as a band saw, drill press, or router, be acceptable at most. In Dudley's study focusing on acoustic guitar builders and their culture, many interviewees, all of them are acoustic guitar builders, told Dudley why they emphasized hand-made value. For example, Jason Kostal, the owner of Kostal Guitars, told Dudley how working for and learning from Ervin Somogyi, an

[36] Dave Schecter is the founder of Schecter Guitar Research, which is also a legendary guitar shop that witnessed the globalization of the guitar-making industry. In 1983, Dave Schecter sold his shop to a group of Texas investors, then went to work for Fadal to make CNC in the San Fernando Valley. The new owners of Schecter then moved the company to Dallas Texas and began to mass produce guitars. However, the profits did not meet their expectations; in 1987, this company was sold to Hisatake Shibuya, the owner of ESP Guitars and Musicians Institute. After purchasing Schecter, Hisatake Shibuya immediately moved this company back to California again and transferred to build high-end, custom-ordered, and craft-oriented guitars.

old school acoustic guitar builder who believed that a guitar maker should be an inefficient artist, was an invaluable experience and made him a different guitar builder:

> *I actually felt like a better luthier, like I had better hand skills… because I went home feeling much more confident about my ability to use hand tools to do things that in the past I would have used power tools to do (Dudley 2014:192).*

Furthermore, after working with Ervin Somogyi as his apprentice for two and half years in 2011, the first thing Jason Kostal did was "threw all the routers away" and bought himself "a bunch of really nice chisels" (Ibid 2014:192). This story illustrates how this conservative cultural value is shared among acoustic guitar makers. They believe that craft-made guitars' value resulted from the combination of manual labor, mental labor, experiences, and the sense of aesthetics held by an artisan, who is different from a mass production unskilled worker or assembler. To increase the value of a guitar, one must keep the practice of using both mind and body.

Jason Kostal's story is a good example to illustrate the traditional view of craft-based labor. This view supported that only a dexterous artisan could make a high-quality guitar, because he knows how to set up the best production process with unexplainable perception and tacit knowledge, just like Dudley's concept—going by touch (2014:287).

In Dudley's definition of going by touch, artisans are integrated with the objects

they are working on by engaging their perception and practice. Moreover, this engagement is not a quantitative measurement, such as labor time. Instead, it is a sensuous feeling obtained through an artisan's labor. For example, most luthiers show their customers that different wood species can make different tones by slightly knocking on the wood's surface. This combination of these back-to-back behaviors—knocking, hearing, and judging—is an example to explain how "going by touch" works in the craft-made guitar industry. Knocking on a piece of wood is a body action to create a connection between an artisan's body and a piece of wood. The sound and tone made by knocking will be received and perceived by an artisan. Finally, this artisan may judge this wood's quality, then decide the most appropriate processing procedure to build a guitar with this wood. The better an artisan is at going by touch, the more likely he will complete a high-end guitar and the higher market price this artisan can create for this guitar. Therefore, the relationship between the price of a product and the cultural value of labor results in the craft-made industry's economy.

Unlike Jason Kastol and other traditional luthiers' beliefs, Bob Taylor predicted that CNC would be the future of this industry after visiting how it worked at Tom Anderson's shop. In December 1989, Bob Taylor ordered his first CNC machine from Fadal and used it to build guitar parts, such as guitar bridles. Accordingly, this brave decision quickly resulted in the reduction of production costs, which meant the increase of competitiveness in the acoustic guitar market:

When Taylor introduced the 410 with its $998 list in 1991, there wasn't an

American built, all-solid wood steel string guitar that had a list price of less than $1000. Martin's least expensive model, the D-16, had a list price of $1330, Guild's D-25 listed for $1100, and Taylor's own 510 listed for $1156. Taylor got the 410's price down by using CNC milled parts and ruthlessly stripping every non-essential cosmetic feature off the instrument (Simmons 2003:153).

There is an apparent contradiction between Jason Kostal's guitar-making philosophy and Bob Taylor's high evaluation of CNC regarding the craft-made guitar's value. In Jason Kosal's idea, undoubtedly, a guitar's value is made by an artisan's craft, despite the low, efficient hand-made style. However, in contrast, Bob Taylor was more willing to replace physical labor power by using machines. If adopting CNC could increase production efficiency without sacrificing the quality of a guitar, it made no sense to insist on hand-made labor.

The difference between Jason Kostal and Bob Taylor reflects two different thoughts regarding how to add value to a commodity. Like Dudley's analysis, Jason Kostal's idea is that a commodity's value is the crystallization of an artisan's aggregate of labor power, regardless of its efficiency. Moreover, Jason Kostal, including other old-school luthiers, believed that the input of an artisan's entire labor power was the necessary condition for a guitar's quality. Bob Taylor's thought is based on a commodity's competitiveness on the market. An artisan's labor power is not required and could be replaced by machines. Bob Taylor wanted to build guitars that could fulfill

the quality of craft-made products and remain competitive in the market; in other words, he wanted to build as cheaply as possible to compete with other guitar makers and especially guitars imported from Japan.

For instance, the success of the 410 series challenged the traditional definition of craft shared within the acoustic guitar builders; however, it disproved the conventional connection between a commodity's market price and its craft's value. In the craft-made industry's traditional wisdom, the price of a craft product just fits its cultural value of craft labor. The more dexterous an artisan's skills in making a product, the higher its price on the market. However, the use of CNC breaks down this relationship between the price of a product and its cultural value of labor because CNC can make guitars more efficiently and precisely without consuming useless human craft. Further, if craft means a guitar's perfect precision and playability, we do not need to care about whether this guitar is made by hand tools or not.

Now we can make sense of other acoustic guitar builders' disparagement of Bob Taylor during the 80s because the use of CNC directly destroyed not only this relationship but also their collective identity within the luthiers' community. That is why Bob Taylor was excluded by other luthiers when he attended the meeting held by the Association of Stringed Instrument Artisans in 1999. As one said, "[w]ell, we're real guitar makers, but Bob's not" (Dudley 2014:127).

Even now, acoustic guitar builders are less likely to adopt CNC than electric guitar builders. According to the sales records of Plek, a German company focusing on making CNC to produce guitars, as of January 2020, 21 customers in the US had

adopted Plek's CNC. Eighteen of them are electric guitar manufacturers, and one makes both electric and acoustic. Only Taylor and Santa Cruz Guitars Company are acoustic guitar builders. This disproportionate ratio (18 to 2) of electric guitar builders to acoustic, once again, highlights not only the conservative culture within acoustic guitar builders but also Bob Taylor's farsightedness of the guitar industry.

Not all projects were completed by Taylor's team members. Instead, Taylor Guitars was willing to work with different kinds of people, including luthiers, scholars, and players, to build guitars to fulfill the needs of other customers and even develop new markets. Taylor AB1 and AB2, the first acoustic bass guitar released in 1994, were designed with help from Steve Klein, a very talented guitar builder living in the Northern Bay Area. This cooperation is a typical case to help us make sense of the importance of collaboration with different experts.

Another example is the cooperation with Jessica Baron Turner, a luthier Rick Turner's wife, who taught kids to play guitars. In 1996, Taylor Guitars released a new guitar, Baby Taylor, designed by using a CAD/CAM program and made by Fadel CNC, and it was the first small-size guitar for the kids' market. The making of Baby Taylor may express Taylor Guitars Company's new marketing policy to develop the market for guitar lesson starters, rather than professional or experienced players. Besides, the prospective consumers of Baby Taylor, which was very different from all guitars made before, were players' parents who were willing to buy a guitar for their kids as a gift, not for themselves. Therefore, if they wanted to promote Baby Taylor successfully, a small-sized guitar with good quality and a low price might not be enough; they also

needed to prepare an appropriate curriculum for young learners.

A phone call from Rick Turner, the founder of Renaissance Guitars in Santa Cruz and one of the founders of Alembic that made pre-amps and pickups, surprisingly inspired cooperation between Taylor and Rick Turner's wife. Both Rick Turner and Bob Taylor had known each other when they both sold their products through Rothchild before Rick Turner called Bob Taylor. One day, Rick Turner called Bob Taylor to learn how to adapt the skill of UV (ultraviolet) finishing for his guitars. Then, Taylor invited Turner to visit his shop in El Cajon to conveniently look at their Baby Taylor guitars, so Rick Turner and his wife, Jessica Baron Turner, visited Bob Taylor's shop. Bob Taylor mentioned in passing that Jessica developed a new curriculum, "SmartStart Guitar: A Fun, Easy Approach to Beginning Guitars for Kids," to teach children how to play guitars.

This coincidence inspired Bob Taylor to promote his Baby Taylors with Jessica Baron Turner's SmartStart Guitar. Bob Taylor agreed to order 3,000 copies of this curriculum and package it with his new Baby Taylor. Bob Taylor even designed a new cover for SmartStart Guitar.

Both the SmartStart Guitar program and Baby Taylor were presented together at the NAMM show in Anaheim in 1997. When Jessica was invited by Bob Taylor to publicly promote how her guitar lessons could inspire kids to play guitars with Baby Taylor, a surprising incident made this speech impressive and persuasive to all audiences in the hall. Rick Turner recalled this experience:

Jessica was put on in the middle of all this to talk about the Baby Taylors, the Smart Start program and how to inspire future generations of guitar players. I was standing at the back of the hall with our one-and-half-year-old son Elias, who noticed his mom on stage and suddenly realized that his dinner was up there. He started making a fuss and I figured that since we were talking about families and music that it would be fine to put Elias onstage so he could be with his mom. He crawled across the stage and she put down the Baby Taylor to pick him up. He then grabbed a flatpick that was on the stage and started strumming the guitar, which was tuned to open D, and began singing "Kumbaya." The place just went wild. We couldn't have scripted such a moment if we tried. Years later people still walk up to her at trade shows and talk about that moment and how Elias proved to them that little kids can learn to play guitar using her method. The smart Start series has gone on to sell more than 110,000 copies. That success probably never would have happened with Bob initially saying yes and really getting behind the project (Simmons 2003: 174).

The success of Baby Taylor is another example to prove the importance of cooperation with other experts or guitar makers. Additionally, it also illustrates that the innovation and creativity of a product in the manufacturing sector could increase a product's value and develop a new market. If a company's guitars are built for a new target market, such as young players, trying to work with different experts, for example,

a curriculum developer of guitar lessons for children, might be a good idea to create value for the product.

How to Increase Value on an Acoustic Guitar? The Invention against Tradition

The success of Taylor Guitars proves that the unceasing invention against tradition can make a company differ from its competitors because inventions will redefine tradition. The inventions of the New Technology Neck (NT neck) and the Expression System are two specific examples to illustrate how Taylor could redefine the meaning of craft. The invention of the NT neck proves that the traditional dovetail joint is not the only neck joint skill. A skilled bolt-on neck can solve some structural problems resulting from the traditional neck joint skill. The rise of the Expression System was another invention, based on the invention of the NT neck, that could collect the sound signal directly and make the guitar sound louder by connecting a guitar with an amplifier.

The NT neck was a new invention released in 1999 that featured a bolt-on neck that was different from traditional acoustic guitars that used a dovetail neck joint. Many old school builders, such as Martin Guitars, use the dovetail neck joint, which connects the neck and body with glue rather than screws. The neck pocket was cut and shaped like a tail piece and the body as a pin piece; then, both were joined together with glue. The most crucial advantage of the dovetail neck joint is its strong tightness. Compared to other types of joints, it is very difficult to separate the two parts that were glued

together in the dovetail joint. Moreover, most players believe that the tight joint will have a better effect on sound sustainability.

Besides, the traditional dovetail neck joint has a symbolic meaning for acoustic guitar builders. Only dexterous and experienced luthiers can make perfect pin pieces and tail pieces and glue the neck on the body tightly. Compared to the dovetail joint, the bolt-on neck joint, like Fender's neck joint, will be seen as an inferior skill only used by deskilled workers in a mass production factory. Furthermore, old-school players and luthiers believe that the traditional dovetail joint can better transmit the sound than the bolt-on joint.

However, there are several disadvantages to the dovetail joint. The first disadvantage is its difficulty in production. Only a very dexterous artisan can precisely cut and shape the perfect pin and tail on both the body side and neck side. Furthermore, the difficulty in production will directly result in the inefficiency of production. Leo Fender was willing to adopt the bolt-on neck, connecting both neck and body with three or four screws, for his Fender guitars because it was the easiest and quickest method to complete the joint without any skills. Therefore, if a guitar builder wants to make guitars more efficiently, using a bolt-on neck would save more time than a dovetail neck joint.

If it is hard to connect the neck to the body, it will also be hard to take off the body's neck. We must keep in mind that wood is a living material that is easily affected by moisture, temperature, and pressure. The back part of a fingerboard on a dovetail neck, from the fourteenth fret to the end of it, lacks support for the neck and must be

glued on the top of the body directly. This neck joint design will easily result in a twisted fingerboard because the back part of the fingerboard will be twisted with the body's top if the body has a physical deformation due to the humidity or other reasons. The deformation of a guitar top is almost an inevitable phenomenon, so the fingerboard glued on the top of the body will be very hard to take off and repair if this guitar adopts the traditional dovetail neck joint.

In contrast, the last part of the fingerboard on Taylor's NT neck, glued on the top of the neck, will not be glued on the top of the guitar directly, so the body's deformation will not affect the fingerboard. Moreover, the easy removal of the neck from the body makes it relatively easy to adjust the angle between the neck and body. In other words, the invention of the NT neck simplified the neck realignment or reset the service sometimes required on acoustic guitars.

In the winter NAMM Show of 2003, Taylor released another revolutionary innovation, the Expression System, an acoustic guitar pickup system installed in the guitar body. The Expression System's function is to collect the sound signal and send it to the connected amplifier. The pickups used in the Expression System are very different from the traditional magnetic pickups installed on electric guitars because the former works like a microphone, which only transmits the guitar's real sound to the amplifier, rather than the electric signals made by magnetic pickups. This apparent difference resulted in a significant advantage of Taylor Guitars, making a loud but clean acoustic guitar tone. Furthermore, this clean tone is adjustable before sending out the amplifier because the Expression System has an installed preamp on the side of the

guitar, so players may easily control the signals—volume, bass, and treble—before sending it out to the amplifier.

The function of the Expression System is highly based on the innovation of the NT neck. We may even assert that the Expression System could not have worked had the NT neck not been invented because one pickup is under the neck pocket of the NT neck. The Expression System had three pickups. One was fundamentally similar to a standard electric guitar pickup because it had a wire coil wrapped around a magnet and was designed to catch the strings' vibrations. Taylor took advantage of the extended neck pocket of its NT neck to completely hide the pickup under the fingerboard extension. "If we hadn't done the NT neck joint, there wouldn't have been a place to hide a magnetic pickup," said David Hosler, one of the development team members of the ES.

The expression system's development is another unprecedented cooperation experience with various experts, including David Hosler, Matt Guzzetta, David Judd, Rupert Neve, and Mark French. The Expression System was designed by David Hosler, a Taylor employee, with help from Matt Guzzetta and repair mechanic David Judd. The preamp for the ES was designed by the sound engineering legend Rupert Neve, a British electronic engineer known as an electronics designer of audio recording equipment and awarded a Technical Grammy by the National Academy of Recording Arts and Science in 1997. Besides, to figure out how an acoustic guitar made a sound, he asked for help from Mark French, an adjunct professor of structural dynamics at the University of Michigan, Dearborn. Once again, the success of the Expression System

illustrates how Taylor continuously develops its innovations through cooperation with different experts.

The development of the Expression System depends on all available sources and technologies in the company as well. At first, Hosler and French measured the top vibrations of a guitar using 3-D laser interferometry and then, sent data into animated videos. By watching the visualized vibrations of a guitar, team members learned how strings transmit the vibration to the body, how the neck affects the sound, and what position of pickups may catch the vibration's maximum.

From the development of AB1 and AB2 to the innovation of the NT neck and the Expression System, it seems that Taylor really created not only a new guitar brand but also a different model, the invention against tradition, in the craft-made guitar industry. Different from Fender's invention of tradition, emphasizing how to create value through inventing the tradition of its "vintage," Taylor's model shows that a company can create value for craft-made products through challenging the traditional definition of craft, regardless of any steps of the guitar-making process, including woodworking, a pickup system, social networks, technology, and business management. Both models, based upon the review of fender and Taylor's histories, show us how the rise of the craft-made guitar industry in the 1980s cannot be explained without understanding the relationship between history and invention.

Invention, Tradition, and California

After briefly reviewing the histories of both Fender and Taylor, we may construct

two models—the invention of tradition and invention against tradition—to describe how the craft-made guitar industry has risen since the late 70s and early 80s in California.

The first model, the invention of tradition (the Fender style), shows that the value of a guitar can be increased if we may successfully create a strong image of "vintage" and attach this image to the guitar that was built. Bill Schultz smartly created a connection between his new team and Leo Fender's tradition, despite a "selected" tradition focusing on those best-sale products and their specifications, which persuasively made consumers believe that the "vintage" of Leo Fender's products had returned.

The creation of the Custom Shop in 1987 is another unprecedented but successful experiment to upgrade Fender's guitar's "Vintage" image. The Custom Shop's policy, which was different from Leo Fender's philosophy to build simple and cheap guitars through mass production, was to make a one-off, limited edition and modified model guitar for few customers who could afford to order a guitar from the Custom Shop. Of course, the Custom Shop's guitars still adopt a bolt-on neck, classical single-coil pickups, and traditional wiring diagrams, which remain easily fabricated, maintained, and repaired; however, they are 23 times as expensive than the same guitars built by Mexican workers.

We must keep in mind that the creation of the vintage and the invention of tradition is completed in the global context. All the above events might not have been completed without global competition if Japanese competitors had not threatened Fender's

monopoly position on the guitar market in the 70s and 80s. Reviewing the global changes of the electric guitar industry and market in the 70s and 80s indicates that the electric guitar industry, like other manufacturing industries, moved out to Asian countries during the same period because they could offer cheap labor forces. The cheap money exchange rate further strengthened Japanese maker's competitiveness. Therefore, the success of Japanese "lawsuit guitars" not only defeated CBS Fender but also resulted in the trade-off between CBS and Bill Schultz in 1985.

The global mobility of the electric guitar industry led to a more complicated relationship between guitar builders in the US and Japan in the 80s. In the beginning, Fender's strategy, like Gibson, was to accuse Japanese copyists, but Fender quickly changed their strategy and reached a settlement with the copyists. This settlement directly resulted in a collaboration between Fender and Japanese copyists, such as Yamano and Fujigen. For instance, Japanese engineers helped Fender USA create a production line in Mexico; however, the establishment of Fender Japan and Fender Mexico encouraged the upgrade of the production line in California and finally resulted in the rise of the Fender Custom Shop. Unlike the traditional wisdom of manufacturing, focusing on strengthening competitiveness by reducing the cost of production, raising the price on a craft-made guitar by attaching an invented cultural value could be another possibility to create Fender's niche in the market.

The invention of tradition might be the most interesting point in Fender's history. Suppose Bill Schultz and his team wanted to make real "vintage" guitars by following Leo Fender's philosophy. In that case, the "traditional" mode of production, scientific

management, and simplification should remain on the shop floor. However, as we see in the review of Fender's history, Bill Schultz created an overseas joint venture and craft-oriented Custom Shop. It is possible that all these strategies were not an extension of Leo Fender's tradition.

Taylor Guitars's story illustrates a different model, the invention against tradition, which indicates how a new company without long history might create its business by challenging the traditional and cultural values shared within a guitar makers' community. In 1974, when Bob Taylor and the other two partners bought out American Dream, a hippie-like guitar co-op, these three young guitar builders initiated the invention against tradition. The original workshop management—everyone working, learning, and practicing together without an obvious hierarchy—was replaced by an efficient strategy based on the division of labor. Sam Radding's retirement from American Dream, of course, meant the end of the apprenticeship. So, it is not strange that Matt Guzzetta, the previous motorcycle designer of American Dream and later the CNC technician at Taylor Guitars, made a joke about the relationship between American Dream and Taylor Guitars: "They changed the whole system, so, got seriously making guitars, and which I said, they ruined the company."[37]

The frequent changes of Taylor Guitars Company in its first ten years exemplify how difficult it is for an unfledged guitar builder to survive in the real world. However, we may argue that these frequent changes reflect a uniquely American style of flexibility with which young guitar builders may swiftly regulate their production

[37] Please see: https://www.namm.org/library/oral-history/matt-guzzetta

policies and organizational frames for surviving.

Therefore, how can we assert that the flexible specialization, an accommodation to the ceaselessly changing market rather than an attempt to control it, is a unique phenomenon existing in some specific countries? Taylor's story clearly shows that any young manufacturer must acclimate itself to the changing market before it is strong enough to tame the market. Reviewing the history of Taylor illustrates that the growth of a small manufacturer can be seen as a process from acclimating to taming the market. However, the next question is how a small manufacturer can successfully tame the market. For example, how could Taylor be able to increase its sales in the 80s when its competitors, such as Martin, even failed to maintain their sales during the tough period of the 80s?

Taylor's answer seems pretty straightforward: the ceaseless invention against tradition. Different from other acoustic guitar builders, Taylor is pleased to accept the changes that resulted from high technology. The use of CNC is just the first step to challenge the traditional definition of craft. Moreover, the adoption of the bolt-on neck directly led to the innovation of the NT neck, which offered a beneficial base for the next innovation, the Expression System, which is the unique pickup and preamp system that was only installed on Taylor's guitars. Finally, we cannot forget that all these inventions are not the fruits cultivated by Taylor's employees. Instead, many of them were created in interdisciplinary cooperation, including builders, players, motorcycle engineers, college teachers, independent luthiers, and even another guitar builder's wife.

By using these two models, the invention of tradition and invention against

tradition, we can conclude how the market price can be created in the craft-based guitar industry. At first, we must always keep in mind that guitar players' contribution to the guitar companies' products. Although workers and artisans make guitars, it is guitar players, especially those guitar heroes and professional players, who attract consumers. Very similar to Tilar J Mazzeo's research of Chanel, the success of Chanel No 5, a costly luxury good, cannot be attributed to the extraction of surplus labor power. Manufacturing, the participation of labor power, could be just a small share of the whole process to make the business benefits. How to create its luxury image and cultural value through an appropriate endorser—for example, that unforgettably successful commercial endorsed by Marilyn Monroe—is much more important than how to extract more labor powers from workers. Appendix I and II clearly show how these two guitar companies highly depend on the cooperation with various guitar players as their endorsers in different years when they released different models. We must always keep in mind that Dale Hyatt's gratitude to Jimi Hendrix because Hendrix successfully induced many consumers to buy Fender's guitars.

Furthermore, both Fender and Taylor noticed that craftsmanship is a useful element to upgrade the public image of a guitar and further increase the value of it. In the story of Fender, its strategy—despite being based on the real tradition of mass production—sophisticatedly picked up part of Fender's traditions, especially the "imaged vintage" of Leo Fender's best-selling guitars and grafted these selected traditions to the new Custom Shop run by craft masters. The growth of Taylor, in contrast, can be seen as a story in which young guitar makers critically made a new

definition of the craft by ceaseless inventions against traditions shared within a conservative community of acoustic guitar makers. In this new definition, craft-made is not so much a piece of art made by an artisan's hands as a commodity of perfect precision and function. Taylor's inventions against tradition show us that craftsmanship means the quality of the product itself. If a company can make a guitar of impeccable precision, intonation, and perfect playability, no one will care how the guitar is made, regardless of the mode of production.

Finally, we might determine that California might play a role to accelerate the birth and growth of these two companies in this state. Various cultural and industrial factors in California, including the rise of rock 'n' roll music, the hippie movement, the big music industry, and other related industries in both the Bay Area and LA, offered guitar makers different opportunities to create their careers there than in other states. In the next chapter, I will use two empirical examples to illustrate how the Bay Area and LA might matter to the rise of the craft-made guitar industry.

Using the data I collected in my fieldwork in Taiwan, Japan, China, and California, the next four chapters will further explore how various guitar builders around the world may widen and deepen these two models by their real practices in their everyday lives, skill formations, and labor processes in the craft-made guitar industry. All their stories, which are actually not different from Fender and Taylor, just reflect a shared question of these other guitar makers: how to strive to survive in this challenging world.

Chapter Five How Does the Ladder towards Luthiers Work: A Case Study of a Hippie Town in California

Based upon the industrial background constructed by Fender and Taylor, in this chapter, I will discuss how guitar builders in Hippie Town, a small city in Northern California, collectively create the production networks in which everyone plays a role in adding value to craft-made guitars. Meanwhile, I will also create a concept, the ladder towards luthiers, to describe how an apprentice may become an independent luthier through endless hard work.

In order to protect the interviewees' confidentiality, all subjects, including place, brand, and people, will be assigned pseudonym names except dead and transnational musical instrument brands.

Introduction: Hippie Town in California

Hippie Town is located on the southern edge of SF Bay and the northern edge of Hippie Bay. In 2019, according to the data from US Census Bureau, the population in Hippie Town was around 64,000. However, in this city, more than 20 small boutique guitar shops are collected here. Compared to Taiwan, a country with a population of more than 2.3 million has around 40 guitar brands; we may quickly notice that the ratio of guitar brands to the population in Hippie Town is disproportionately higher than the ratio in Taiwan.

This disproportionate ratio of guitar makers to the population inspires me to ask whether these guitar makers can easily earn a living if they only depend on the market

in Hippie Town. If not, why are guitar makers more willing to move to this small city without the market? What is the niche to set up their shop here? All these questions are related to my original research question: how can a craft guitar maker add value to his boutique guitar? Before answering these questions, we should understand the basic industry networks in Hippie Town.

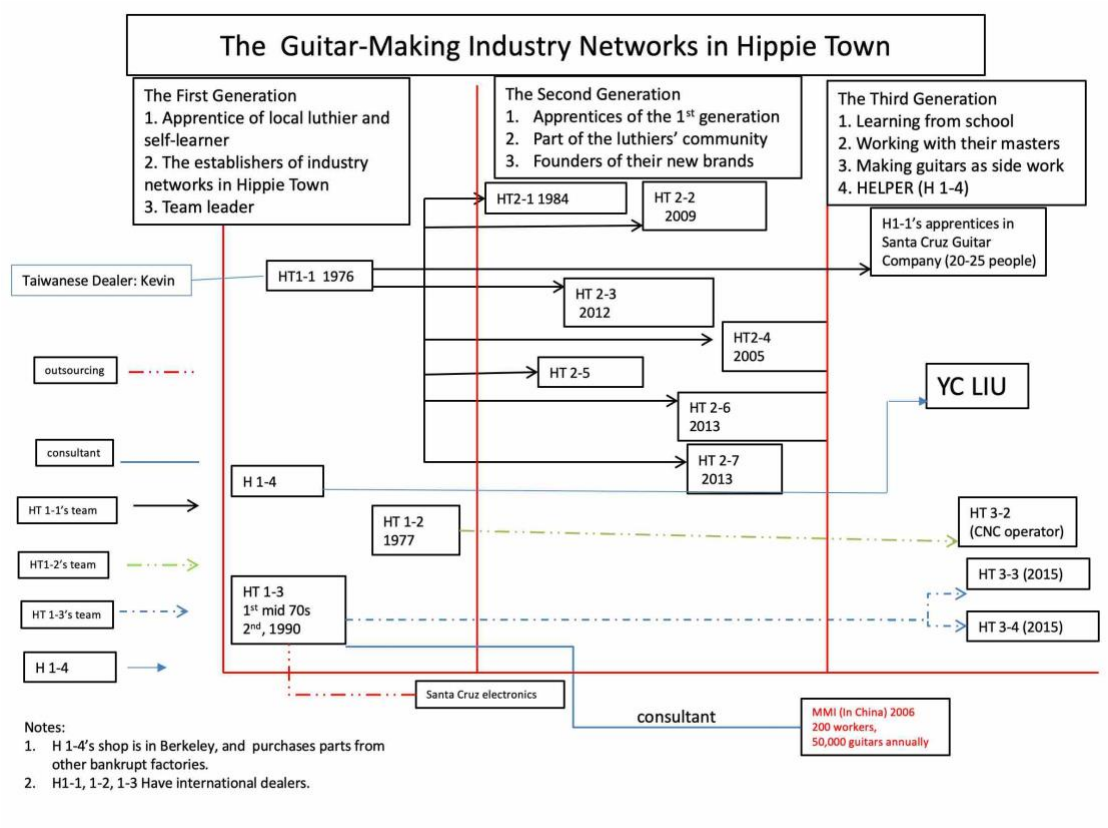


Figure 4 The Guitar-Making Industry Networks in Hippie Town

Figure 4 shows how the local production networks among guitar builders have been developed in Hippie Town. We can divide artisans into three groups: the first generation, the second generation, and the third generation.

There are only four builders in the first generation in Hippie Town, and four of them separately create their brands or shops: HT1-1, HT1-2, HT1-3, and HT1-4[38]. These four luthiers in the first generation shared the following common features. First, all of them are either self-learner or local luthier's apprentices, rather than a graduate from luthiery school. Second, creating their brands and business has a significant impact on the rise of the whole guitar industry networks in Hippie Town. Third, all of them run their business with the team they made. And the team structures are different from the scientific management used in the mass production factory.

First, in the 70s, systematic guitar-making education was not born yet. Therefore, there were only two pathways to learn guitar-making skills. The first one was to work at a mass-production guitar factory which would teach you all the required skills. The second one was to learn skills from local luthiers. In the craft-oriented guitar industry, especially in the acoustic guitar industry, most early luthiers learned from other luthiers or self-leaners, very few makers learned from a factory. The second-generation builders' learning experiences are very different from the first generation because most of the second-generation makers learned from the first generation. However, suppose we observe the third generation. In that case, not surprisingly, they are different from the first and second generation, because most of them had learned from luthiery school before they went to Hippie Town.

Second, HT1-1, HT1-2, and HT1-3 created the industry networks in Hippie Town. H1-1 may be the most famous guitar builder in Hippie Town. He created his shop in

[38] Because of the lack of enough information, in this chapter, I will not discuss the case of HT1-4.

1977 and has created his production networks in Hippie Town in which H1-1 had hired many second-generation guitar builders before they created their brands in Hippie Town, such as HT2-1, HT2-2, HT2-3, HT2-4, HT2-5, HT2-6, and HT 2-7. In addition, he also creates his global business networks through working with various local dealers around the world. For instance, Kevin is one of the most important local dealers responsible for selling and promoting HT1-1's guitars in Taiwan. HT1-1 also has connections with other luthiers in the first generation. HT1-2 moved to Hippie Town because HT1-1 invited him. And two of them even shared the same studio when they began their guitar-making business in Hippie Town.

HT1-2 is one of the fewer electric guitars in Hippie Town. As one of the first-generation builders, he worked for Alembic, a pick-up manufacturing company in Santa Rosa in the 70s, before accepting HT1-1's invitation to move to Hippie Town. He created his different production networks in the industry. For example, his wife helped Bob Taylor to promote Baby Taylor.

HT1-3 is another first-generation builder. He hired several young artisans to work with him at his shop in Hippie Town. We have to notice his multiple employments of people, including direct employment, independent contractor, outsourcing. In a word, HT1-3, just like many small business owners in Asia, used flexible employment to reduce the cost of production and enhance the efficiency of production.

HT1-4 is very different from the first three builders because he does not create his guitar brand. Instead, his ship is famous for modifying old guitars made between the 1950s and 70s. In addition, despite his shop in Berkeley, he created his workshop in

Hippie Town in the summer of 2020. He has two helpers in his workshop in Hippie Town. One of them is a graduate student of sociology at UC Hippies (YC Liu); another is HT1-4's neighbor.

The second generations mean those young artisans who created their independent shop between the 80s and 90s. During this period, without the internet and other social media, not only did they produce craft guitars, but they also created their reputation in the market through traditional mass media: guitar magazines, local newspapers, or participating trade shows for musical instruments.

The third generation is still struggling to create their reputation and learning their craft skills. Some of them just left their masters and began their business, but most of them are still working with their master in Hippie Town. Those who try to create their brands, different from the first and second-generation builders, will promote their guitars with social media, such as Facebook. However, this generation gap in terms of the rise of social media has gradually been eliminated because many first and second-generation builders learn how to use social media.

Figure 4 briefly introduces the industry networks in Hippie Town, but it does not answer how guitar makers established the industrial networks and why in Hippie Town. By interviewing several members in Hippie Town, we may answer these questions. Then we can move on to those individual guitar builder's different experiences.

However, before introducing these guitar makers' stories, we have to explain why they collected in Hippie Town, as well as how the Industry Networks could be created?

Although HT1-1 plays a crucial role in creating the industry networks in Hippie

Town, we can't presume he is the first guitar builder in Hippie Town. Instead, we should question whether other guitar builders had worked in Hippie Town HT1-1 created his shop in 1976. The answer is yes. In fact, despite a son of a skilled cabinetmaker, HT1-1 only commanded limited knowledge about guitar-making until learning from Bruce McGuire and Jim Patterson. Both these two guitar builders taught HT1-1 how to build acoustic guitars in the early 70s. So, what is the difference between HT1-1 and his two tutors?

The difference is clear: HT1-1 is the first professional luthier regularly making a profit by building guitars. Compared to his tutors, both McGuire and Patterson having other occupations and sources of salary[39], HT1-1 lived his life by making guitars. If we want to understand how craft skills can create value, HT1-1's experiences will be more useful to answer the question than both of his tutors.

However, McGuire and Patterson left HT1-1 a precious heritage that directly results in the rise of industry networks in Hippie Town: sharing the knowledge and experiences with young luthiers. In HT1-1's official website, when he talked about how Bruce McGuire had a good influence on him, he reminded of the message McGuire left him: "You always get more than you give. Do your best. It works every time." McGuire's expectation to HT1-1 is to pass on what HT1-1 learned from McGuire to the next young generation in the same spirit. That's why Bruce McGuire taught HT1-1 guitar-making skills for free. In HT1-1's website and interview, he expressed his deep gratitude towards McGuire and Patterson and really received many young artisans in

[39] Bruce McGuire was a probate referee for Hippie Town; Jim Patterson was a printer for Hippie Town. Patterson even printed the parking tickets for Hippie Town.

his shop and tutored them HT1-1's style of guitar-making skills. HT1-1 told me why Hippie Town can become a city full of guitar builders:

> *HT1-1: I came to Hippie Town to play music. But I stayed because of these two people. Many of these people learned from me and stayed in Hippie Town, because I live here. And some come to Hippie Town because of the community of builders and attracts them…*
>
> *YC: If one day you decide to quit, will this community of builders still exist in Hippie Town?*
>
> *HT1-1: It doesn't matter. Because these two people both died, they're dead, right? But their influence still continues on, even if those people don't even know their names, right? So, if you take me out, they'll be learning from these guys (second generation), and the story of Hippie Town will be interesting, but they won't be depended on that. Because people start for all whole reasons, some of them find very beneficial to cooperate with people to get knowledge, some of them want to do it on their own and don't even talk to others.*

There is nothing better than Durkheim's "social fact" for analyzing HT1-1's opinion on the question of why guitar builders would like to stay in Hippie Town. Social Fact is a concept, types of conduct or thought are not only external to the individual but are, moreover, endowed with coercive power (Durkheim 1938: 2), used to describe how the established social rules can exist and enforce the will on individuals. Just like the established guitar industry networks in Hippie Town, if one day HT1-1 is taken out, the influence of the networks will continue.

HT1-1: How to Add Value on a Boutique Guitar? Through Creating Tradition, Reputation, and Collaborating with Local Dealers

In the last section, I point out that the establishment of the guitar industry networks is similar to Durkheim's social fact. In addition, we further learn that HT1-1 plays a crucial role in transforming the meaning of guitar-making from an amateur's hobby to a professionalized career. Henceforth, guitar-making in Hippie Town would become a formal industry rather than a side business. In this section, I will further delineate how HT1-1 can add value to his guitars and make them a commodity on the market.

Before discussing how HT1-1 can add value to his guitars and make it a lucrative industry, we have to figure out the price of his guitars first. In his interview, HT1-1 clearly states the importance of history and reputation:

> *HT1-1: The market will change, and people may not buy guitars. And Therefore, there're too many guitar makers. The advantage we have is 43 years of history and reputation and trust, that gives us a huge advantage over the person just started, or person just started even ten years ago. So, what would have happened to… for us our business to fail is for the market, the demand to shrink so much, that too many guitar makers, and there is not enough to feed anybody.*

Now we may learn how tradition matters to small boutique guitar makers from a different perspective. According to HT1-1's experiences, his brand is based upon 43-year history, reputation, and customer trust. HT1-1's idea is similar to my learning experience at Musicians Institute in LA. One instructor, when he taught us the philosophy of guitar-repairing in the first lecture. If you mess up one case, tomorrow, everyone will know this news." He said. Reputation, trust, just like tradition, could only reflect an abstract cultural value of HT1-1's brand on the market. How can we measure

his guitar's market value in terms of price? And what's his market strategy to add value to his guitars?

YC: Last time when I interviewed you, you said you build 700 guitars a year, and you set up a quota for every local market. For example, during that time, you said China's quota is 15%.

HT1-1: Yeah.

YC: You know that China is a rising market, so even 700 guitars totally not enough to fulfill the Chinese market, but you want to take care other markets, so you don't want to expand your productivity…

HT1-1: Something important, you said now you don't want to change, we change all the time, we have to be constantly changing to meet the market place. So last time we make 700 guitars, today we make 400. That's a huge change, ok?

YC: You lower your productivity?

HT1-1: But also our guitars have average sales price that's maybe double, what we did before maybe 700, right?

YC: yeah.

HT1-1: Not because we raise the price, because we add more value. We add more value on cost more. We add more value on wood that we do. That's the big change, and that's growth. So the business growths, most in reputation by doing something no one else can we'll do, and cost more. And we became more financially successful because we make more money, and we did that by consciously changing from trying to please lots of people with standard models look like Gibson or Martin. And we can do the best, so that's the change…If we're doing the same thing, it may not work.

HT1-1's story may intrigue us to reflect on the previous understanding of craft-made acoustic guitar tradition. Compared to the electric guitar industry, the acoustic

guitar industry has a long history, making most traditional luthiers don't want to change their identity and tradition. However, HT1-1, just like Taylor Guitars, the creation of their reputation is not based upon something never changed. In contrast, they never mind challenging the tradition they have created.

Therefore, being a craft-oriented guitar builder doesn't mean insisting on keeping the so-called tradition. In contrast, if you can successfully persuade customers into buying your guitars, tradition can be changed anytime. In order to fulfill customer's needs, versatility is more important than tradition. So, when I directly asked HT1-1 the question "what's the tradition of your guitars," and "what's the vintage tone of your guitars," he didn't respond to me directly. Instead, what he emphasizes is he can build any guitar to fulfill customer's different preferences for tone and quality:

> *HT1-1: We're a custom shop, and we know how to build for all different styles. Some people want a vintage tone, and some people want very modern. We can do both. So often time it's hard for people to define what HT1-1 is. They might say, Gibson, oh, that's country-folk guitar. Taylor, oh, that's a young person's performing guitars. It has more ad brand position themselves. As a customer shop, we're hard to qualify because we make different guitars for different people, right?*

Obviously, "vintage" is not the most important concern in HT1-1's thought. In contrast, vintage is just one element HT1-1 can use to build his guitars. Besides, he can also build modern guitars, such as Taylor style, to fulfill customer's different preferences. As a small shop owner and builder, HT1-1 shows his flexibility and versatility again. Actually, he has to keep the flexibility and versatility because

changing is the best advantage a small business owner has in the market. In a word, the more frequently he changes, the more value he can add on his guitars, and the more expensive his guitars will cost on the market:

HT1-1: Do you know the average price of my guitars?
YC: I remember that your most expensive model now is 13,000. But four years ago, average price sought 3,000 dollars.
HT1-1 (asked his staff): so how much is our guitar average?
Staff: 7 to 8,000 dollars.

HT1-1's strategies for adding value to his guitars, through flexibility and versatility, led to the deployment of labor forces on his shop floor. Like Taylor, HT1-1's mode of production is based upon a combination of craft and advanced technology, especially the use of CNC. First, in Figure 4, on the one hand, HT1-1 still needs young artisan's labor participation for making guitars; on the other hand, HT1-1 is also the only guitar firm in Hippie Town using the specific CNC machine made by Plek, a German CNC manufacturer whose CNC also used by Taylor Guitars now. Figure 5 shows the CNC machine, made by Plek, that implement all fingerboard works, including fretslot cutting, drilling the inlay positions, nut pocket cutting, etc. Before adopting CNC, all these fingerboard works have to be done by artisans with hand tools. So, the use of CNC can efficiently implement the works and save human resources for other works.

All the above factors regarding the increase of a guitar's value, HT1-1's skill formation process flexibility, versatility, CNC, are related to guitar-making activity

itself. Can we figure our other factor may add value to a guitar out of the production itself? The discussion on the business networks might offer us a new dimension to think about how other actors may help a guitar builder to sell more guitars and save a builder's time. Hence, maybe HT1-1's dealer's opinions may help us figure out how a dealer may play his role in a guitar builder's global production networks.

Kevin, HT1-1's local dealer in Taiwan, clearly told me what role he plays in HT1-1's global business networks. His jobs can be divided into three parts: receiving orders from local customers, promoting luthier's guitars, and offering maintenance and repair services.

Receiving orders for the builder is a dealer's first and major work. Besides receiving the order, a dealer also needs to track the production and ship for customers. In a word, Kevin is the mediator between local consumers in Taiwan and HT1-1 in California.



Figure 5 Plek Station, a CNC machine at HT1-1's guitar shop in Hippie Town,

California

YC: You talked about the negotiation between you and HT1-1 when you were discussing the agency. What's that?

Kevin: In my opinion, as a dealer, our job is to localize those products when we import them to Taiwan. This localization means that we have to think about local players' needs from their perspective rather than from a dealer's perspective. We have to ask this question: what's a Taiwanese player's expectation of HT1-1's guitar? Why do I want to buy HT1-1's boutique guitar? Can I have some specific options on it?

Kevin figures out an important distinction between craft production and mass production ignored by previous studies of the craft industry: customer's expectation and option. If a customer wants to buy a Fender guitar or Yamaha guitar, the only thing this customer needs to do is walk into any Guitar Center and pay for a favorite guitar in stock. However, buying a boutique guitar is different because customers face various options when they want to purchase a boutique guitar. What's your preference for wood for the top of your body? Mahogany, flame maple, or European Spruce? Do you like sunburst painting? Do you want to have binding on the edge of your guitar? Do you want to use Brazilian Wood for your fingerboard? What's your favorite radius of the fingerboard? Do you want a one-way truss rod or a two-way? Almost any custom-ordered boutique shop can fulfill any guitar player's need if this player can very clearly fill in the complicated specification form.

Making a distinction between a boutique shop and mass production is critical to

guitar builders and customers. On the one hand, if a builder cannot command the entire know-how and skills, he/she will fail to fulfill customer's specific needs. On the other hand, if a customer doesn't have prior knowledge of this brand and its guitar, it's impossible to fill in the specification form. Figure 6 is Fender Custom Shop's specification order form. This 4-page order form can very clearly show us how professional it is to order a boutique guitar.



SWITCH TIPS, CONTROL KNOBS, AND PICKUP COVERS

SWITCH TIPS

WHITE EGGSHELL AGED WHITE VINTAGE WHITE BLACK

CONTROL KNOBS

WHITE EGGSHELL AGED WHITE

VINTAGE WHITE BLACK

PICKUP COVERS

WHITE EGGSHELL AGED WHITE

VINTAGE WHITE BLACK

DESIGN GUIDE

BUILD LEVEL (SELECT ONE)

- MASTERBUILT
- SELECT BUILDER
- CUSTOM-BUILT

BASE MODEL

STRATOCASTER

- 1955 STRATOCASTER (ASH)
- 1956 STRATOCASTER (ALDER)
- OTHER 1950'S STRATOCASTER (ALDER)
- 1960 STRATOCASTER
- 1963 STRATOCASTER
- 1963 STRATOCASTER
- 1966 STRATOCASTER
- 1969 STRATOCASTER
- OTHER 1960'S STRATOCASTER
- ELITE STRATOCASTER
- ANVIL FLIGHT CASE OPTION (STRAT)

NOCASTER/TELECASTER/ESQUIRE

- 1951 NOCASTER
- 1952 TELECASTER
- OTHER 1950'S TELECASTER
- 1960 TELECASTER
- 1960 TELECASTER CUSTOM
- 1963 TELECASTER
- 1967 TELECASTER
- OTHER 1960'S TELECASTER
- 1959 ESQUIRE
- OTHER YEAR ESQUIRE
- 1950'S THINLINE TELECASTER
- ELITE TELECASTER
- ANVIL FLIGHT CASE OPTION (TELE)

JAZZMASTER/JAGUAR/BASS VI

- 1962 JAZZMASTER
- OTHER YEAR JAZZMASTER
- 1962 JAGUAR
- OTHER YEAR JAGUAR
- BASS VI

FENDER BASS

- 1955 PRECISION BASS
- 1959 PRECISION BASS
- 1960 PRECISION BASS
- OTHER YEAR PRECISION BASS
- 1964 JAZZ BASS
- 1975 JAZZ BASS
- OTHER YEAR JAZZ BASS

AGING TYPE

- NOS
- TIME CAPSULE (FLASH-COAT NOS/CC HDW)
- CLOSET CLASSIC
- CLOSET CLASSIC/NOS HDW
- DLX CLOSET CLASSIC
- JOURNEYMAN RELIC®
- JOURNEYMAN RELIC/CLOSET CLASSIC HDW
- RELIC
- RELIC/CLOSET CLASSIC HDW
- HEAVY RELIC
- HEAVY RELIC/CLOSET CLASSIC HDW

CUSTOM OPTIONS

CONSTRUCTION

- LEFT HANDED GUITAR
- HOLLOW BODY W/ F-HOLE (STRAT/TELE)
- HOLLOW BODY W/ 2 F-HOLES (NO PG TELE)
- BODY BINDING 1 SIDE
- BODY BINDING 2 SIDES
- REVERSE HEADSTOCK
- CONTOURED NECK HEEL
- BOUND FINGERBOARD
- REVERSE ANGLE BRIDGE PICKUP ROUT

BODY WOOD

- BASE MODEL BODY WOOD
- SORT FOR LIGHT WEIGHT BODY WOOD
- ASH
- OKOUME
- FIJI MAHOGANY
- ADD ROASTED BODY WOOD OPTION
- OTHER BODY WOOD
- "AA" FLAME MAPLE TOP
- "AA" QUILTED MAPLE TOP
- SPALTED MAPLE TOP
- 4A KOA TOP
- OTHER EXOTIC TOP

BODY COLOR (SELECT FROM PAGE 33)

- SINGLE COLOR #
- COLOR OVER COLOR # / #
- SPARKLE COLOR
- PINK PAISLEY (TOP)
- PINK PAISLEY (TOP & BACK)
- BLACK PAISLEY (TOP)
- BLACK PAISLEY (TOP & BACK)
- BLUE FLOWER (TOP)
- BLUE FLOWER (TOP & BACK)

BODY FINISH

- BASE MODEL FINISH
- NITRO LACQUER
- NITRO LACQUER / 'WLS UNDERCOAT
- FLASH COAT LACQUER
- URETHANE

CUSTOM OPTIONS (CONTINUED)

NECK WOOD
- ☐ BASE MODEL NECK WOOD (FLAT SAWN)
- ☐ RIFT SAWN MAPLE
- ☐ QUARTERSAWN MAPLE
- ☐ "AA" FLAME QUARTERSAWN MAPLE
- ☐ "AA" FLAME MAPLE
- ☐ "AAA" FLAME MAPLE
- ☐ "AA" BIRDSEYE MAPLE
- ☐ "AAA" BIRDSEYE MAPLE
- ☐ ADD ROASTED NECK WOOD OPTION
- ☐ ROSEWOOD NECK
- ☐ OTHER NECK WOOD _____

NECK TINT
- ☐ NO TINT
- ☐ LIGHT TINT
- ☐ MEDIUM TINT
- ☐ DARK TINT

NECK FINISH
- ☐ BASE MODEL FINISH
- ☐ NITRO LACQUER
- ☐ FLASH COAT LACQUER
- ☐ URETHANE
- ☐ SATIN URETHANE
- ☐ MATCHING PAINTED HEADCAP

NECK SHAPE
- ☐ BASE MODEL NECK SHAPE*
- ☐ CUSTOM NECK SHAPE #_____ (START AT PAGE 36)

FINGERBOARD WOOD
- ☐ BASE MODEL FINGERBOARD WOOD
- ☐ 1-PIECE MAPLE NECK
- ☐ ROUND-LAM MAPLE
- ☐ SLAB ROSEWOOD
- ☐ ROUND-LAM ROSEWOOD
- ☐ SORT FOR DARK ROSEWOOD
- ☐ AFRICAN BLACKWOOD
- ☐ EBONY

FINGERBOARD RADIUS
- ☐ BASE MODEL FINGERBOARD RADIUS
- ☐ 7.25"
- ☐ 9.50"
- ☐ 12.00"
- ☐ 7.25" TO 9.5" COMPOUND RADIUS
- ☐ 7.25" TO 12" COMPOUND RADIUS
- ☐ 9.5" TO 12" COMPOUND RADIUS
- ☐ 9.5" TO 16" COMPOUND RADIUS (BASS ONLY)
- ☐ SCALLOPED FINGERBOARD

WIDTH AT NUT
- ☐ BASE MODEL NUT WIDTH*
- ☐ 1.650"
- ☐ 1.685"
- ☐ 1.6875"

NUT MATERIAL
- ☐ BASE MODEL NUT MATERIAL*
- ☐ MICARTA
- ☐ BONE
- ☐ GRAPHITE
- ☐ LSR ROLLERNUT

NUMBER OF FRETS
- ☐ BASE MODEL NUMBER OF FRETS
- ☐ 22 FRETS (STRAT/TELE)

FRET WIRE
- ☐ BASE MODEL FRET WIRE
- ☐ VINTAGE
- ☐ MEDIUM VINTAGE 47095
- ☐ NARROW TALL 6105
- ☐ MEDIUM JUMBO 6150
- ☐ JUMBO 6100
- ☐ OTHER FRET WIRE _____

POSITION & SIDE MARKERS
- ☐ BASE MODEL DOT MATERIAL
- ☐ VINTAGE BLACK
- ☐ VINTAGE WHITE
- ☐ PEARL WHITE
- ☐ BLACK BLOCK INLAYS
- ☐ PEARL BLOCK INLAYS

12"" FRET DOT SPACING
- ☐ BASE MODEL DOT SPACING*
- ☐ WIDE 12"" FRET DOT SPACING
- ☐ NARROW 12"" FRET DOT SPACING

HARDWARE COLOR
- ☐ BASE MODEL HARDWARE COLOR*
- ☐ NICKEL/CHROME
- ☐ GOLD

NECK PLATE
- ☐ BASE MODEL NECK PLATE
- ☐ V-LOGO NECK PLATE
- ☐ F-LOGO NECK PLATE

*For base model specifications see page 17

BRIDGE
- ☐ BASE MODEL BRIDGE ASSEMBLY*

STRATOCASTER BRIDGE
- ☐ AM VINTAGE SYNCHRONIZED TREMOLO
- ☐ 2-POINT CLASSIC PLAYER TREMOLO
- ☐ 2-POINT CUSTOM CLASSIC TREMOLO
- ☐ RSD STRAT TREMOLO
- ☐ RSD HARD-TAIL (SAWED OFF TELE)
- ☐ VINTAGE HARD-TAIL
- ☐ FLOYD ROSE® ORIGINAL
- ☐ CUSTOM CLASSIC HARD-TAIL

TELECASTER BRIDGE
- ☐ '51 – '53 TELECASTER – BRASS SADDLES
- ☐ '54 – '57 TELECASTER – STEEL SADDLES
- ☐ '60 & '66 TELECASTER – THREADED SADDLES
- ☐ '67 '81/2 – SLOTTED STEEL SADDLES
- ☐ CUSTOM DELUXE TELE BRIDGE
- ☐ RSD TELE BRIDGE
- ☐ RSD HARD-TAIL (SAWED OFF TELE)
- ☐ BIGSBY®-3 VIBRATO TAILPIECE

PRECISION/JAZZ BASS
- ☐ VINTAGE 2-SADDLE BRIDGE
- ☐ VINTAGE THREADED SADDLES BRIDGE
- ☐ VINTAGE GROOVE SADDLES BRIDGE
- ☐ MODERN BASS BRIDGE
- ☐ RSD BASS BRIDGE

JAZZMASTER/JAGUAR
- ☐ RSD J-BRIDGE

TUNING MACHINES
- ☐ BASE MODEL TUNING MACHINES
- ☐ VINTAGE STYLE
- ☐ VINTAGE-STAGGERED
- ☐ VINTAGE LOCKING
- ☐ SPERZEL DELUXE
- ☐ SPERZEL DELUXE W/ PEARL BUTTONS
- ☐ SPERZEL TRIM-LOK™
- ☐ FENDER/SCHALLER "F"
- ☐ OTHER _____

PICKGUARD
- ☐ BASE MODEL PICKGUARD
- ☐ 1-PLY EGGSHELL WHITE
- ☐ 1-PLY PARCHMENT WHITE
- ☐ 1-PLY BLACK
- ☐ 1-PLY BLACK PHENOLIC LAMINATE
- ☐ 3-PLY EGGSHELL WHITE
- ☐ 3-PLY PARCHMENT WHITE
- ☐ 3-PLY MINT GREEN
- ☐ 3-PLY BLACK
- ☐ 4-PLY BROWN SHELL
- ☐ ANODIZED GOLD
- ☐ OTHER _____

*For base model specifications see page 17

CONTROL KNOBS
- ☐ BASE MODEL KNOBS*

STRATOCASTER KNOBS
- ☐ WHITE
- ☐ EGGSHELL WHITE
- ☐ PARCHMENT WHITE
- ☐ VINTAGE WHITE
- ☐ BLACK

TELECASTER/PRECISION BASS KNOBS BRIDGE
- ☐ VINTAGE KNURLED
- ☐ ALUMINUM KNURLED

STRAT PICKUP COVERS
- ☐ BASE MODEL COVERS*
- ☐ WHITE
- ☐ EGGSHELL WHITE
- ☐ PARCHMENT WHITE
- ☐ VINTAGE WHITE
- ☐ BLACK
- ☐ LIPSTICK COVERS (EACH)

WIRING
- ☐ BASE MODEL WIRING

STRATOCASTER WIRING
- ☐ VINTAGE STRAT
- ☐ MODERN STRAT
- ☐ VINTAGE MODIFIED #1
- ☐ VINTAGE MODIFIED #2 W/TONE-SAVER
- ☐ STRAT BLENDER
- ☐ STRAT BLENDER W/GREASEBUCKET
- ☐ FAT '50S HOOK-UP
- ☐ FAT '50S HOOK-UP W/HALF BLENDER
- ☐ FAT '50S HOOK-UP W/GREASEBUCKET
- ☐ H-S-S POMO STRAT 250/300
- ☐ H-S-S CONFIGURATION
- ☐ H-S-H CONFIGURATION
- ☐ H-H CONFIGURATION

TELECASTER/ESQUIRE WIRING
- ☐ '51 NOCASTER
- ☐ '51 MODIFIED NOCASTER
- ☐ VINTAGE TELE 1953–1967
- ☐ MODERN TELE
- ☐ MODERN TELE W/ GREASEBUCKET
- ☐ MODERN TELE W/ 4-WAY SWITCH
- ☐ FAT '50S TELE
- ☐ NASHVILLE TELE (3-PICKUP TELE)
- ☐ H-S TELE
- ☐ H-S TELE CABALLO TONO 250/500
- ☐ H-S TELE DUAL-STACK 250/500
- ☐ H-H TELE CONFIGURATION
- ☐ FULL THROTTLE ESQUIRE (1-PICKUP)

JAZZ BASS® WIRING
- ☐ VINTAGE JAZZ BASS W/ CONCENTRIC KNOBS

MISCELLANEOUS ELECTRONICS
- ☐ 5-WAY SWITCH (STRAT)
- ☐ REVERSE TELE CONTROL PLATE
- ☐ TONE-SAVER TREBLE BLEED
- ☐ GREASEBUCKET TONE CONTROL
- ☐ T&N TONE CONTROL
- ☐ NO-LOAD TONE CONTROL
- ☐ S-1 SWITCH
  S-1 FUNCTION _____

PICKUPS

PICKUPS	N	M	B
BASE MODEL PICKUPS*	☐	☐	☐
RWRP MIDDLE PICKUP		☐	
STRAT PICKUPS – FENDER CUSTOM SHOP			
'50S STRAT	☐	☐	☐
FAT '50S STRAT	☐	☐	☐
'60S STRAT	☐	☐	☐
'58 STRAT	☐	☐	☐
'65 STRAT	☐	☐	☐
'66 STRAT	☐	☐	☐
'69 STRAT	☐	☐	☐
TEXAS SPECIAL™ STRAT	☐	☐	☐
MASTER DESIGN STRAT	☐	☐	☐
HAND-WOUND STRAT® PICKUPS (PRICED PER PICKUP)			
ADD MASTER WOUND UPGRADE			
H/W '50S STRAT	☐	☐	☐
H/W FAT '50S STRAT	☐	☐	☐
H/W '60S STRAT	☐	☐	☐
H/W FAT '60S STRAT	☐	☐	☐
H/W '55 STRAT	☐	☐	☐
H/W '56 STRAT	☐	☐	☐
H/W '57 STRAT	☐	☐	☐
H/W '59 STRAT	☐	☐	☐
H/W '60/'63 STRAT	☐	☐	☐
H/W '64 STRAT	☐	☐	☐
H/W '65 STRAT	☐	☐	☐
H/W '66 STRAT	☐	☐	☐
H/W '69 STRAT	☐	☐	☐
H/W TEXAS SPECIAL STRAT	☐	☐	☐
H/W MASTER DESIGN TROPO STRAT	☐	☐	☐
H/W DUAL-MAG STRAT	☐	☐	☐
H/W EL DIABLO STRAT	☐	☐	☐
H/W ANCHO POBLANO STRAT	☐	☐	☐
H/W TOMATILLO STRAT	☐	☐	☐
OTHER STRAT PICKUPS			
FENDER LACE SENSOR	☐	☐	☐
FENDER NOISELESS™	☐	☐	☐
DUNCAN® HOT RAILS™ SLDS-1	☐	☐	☐
DUNCAN HOT SSL 3	☐	☐	☐
DUNCAN LIL SCREAMIN' DEMON™	☐	☐	☐
DUNCAN LIPSTICK TUBE SLS-1	☐	☐	☐
TELE PICKUPS - FENDER CUSTOM SHOP			
'51 TELECASTER/NOCASTER	☐	-	☐
'56/'57 TELE	☐	-	☐
'63 TELE	☐	-	☐
'67 TELE	☐	-	☐
TEXAS SPECIAL TELE	☐	-	☐
TWISTED TELE	☐	-	☐
HAND-WOUND TELE PICKUPS (PRICED PER PICKUP)			
ADD MASTER WOUND UPGRADE	☐		☐
H/W ORIGINAL BLACKGUARD "OBG"	☐	-	☐
H/W '50/'51 BLACKGUARD	☐		☐
H/W '50/'51 CRUSHED BLACKGUARD	-	-	☐
H/W '51 NOCASTER	☐	-	☐
H/W '51 LOADED NOCASTER	☐		☐
H/W '55/'56 TELE	☐	-	☐
H/W '58 TELE	☐	-	☐
H/W '63 TELE	☐	-	☐
H/W '67 TELE	☐	-	☐
H/W TWISTED TELE	☐	-	☐
H/W TEXAS SPECIAL TELE	☐	-	☐
H/W RED HOT TELE	☐	-	☐

*For base model specifications see page 17

OTHER TELE PICKUPS			
FENDER NOISELESS	☐	-	☐
DUNCAN FIVE-TWO™ TELE	☐	-	☐
DUNCAN QUARTER POUND	☐	-	☐
DUNCAN LITTLE '59"	☐	-	☐
HUMBUCKING/P90 PICKUPS	**N**	**M**	**B**
FENDER SHAWBUCKER	☐	-	☐
CuNiFe WIDE RANGE	☐		☐
EVH® HUMBUCKING	☐	-	☐
DUNCAN '59" SH-1 NECK	☐	-	
DUNCAN JB SH-4 BRIDGE		-	☐
DUNCAN ANTIQUITY HUMBUCKING	☐		☐
DUNCAN ASHCO II PRO TBAPH-1	☐	-	☐
DUNCAN DISTORTION TREMBUCKER™	☐	-	☐
DUNCAN PEARLY GATES™ SH-PG1	☐	-	☐
DUNCAN SCREAMIN' DEMON™	☐	-	☐
DUNCAN DISTORTION™ SH-6	☐	-	☐
DUNCAN UNEWIRE CLASSIC	☐	-	☐
DUNCAN INVADER SH-8	☐	-	☐
DUNCAN TREMBUCKER™	☐	-	☐
TV JONES® CLASSIC (TELE ONLY)	☐	-	☐
TV JONES CLASSIC PLUS (TELE ONLY)	☐	-	☐
TV JONES POWER-TRON (TELE ONLY)	☐	-	☐
TV JONES POWER-TRON PLUS (TELE ONLY)	☐	-	☐
TV JONES SUPER-TRON (TELE ONLY)	☐	-	☐
TV JONES MAGNA-TRON (TELE ONLY)	☐	-	☐
P-90	☐	-	☐

*For base model specifications see page 17

BASS PICKUPS	N	M	B
PRECISION BASS PICKUPS			
'55 PRECISION BASS	-	☐	-
'57 PRECISION BASS	-	☐	-
'59 – '62 PRECISION BASS	-	☐	-
'59 – '62 PRECISION BASS (FLAT POLES)	-	☐	-
H/W '55 PRECISION BASS	-	☐	-
H/W '57 PRECISION BASS	-	☐	-
H/W '62 PRECISION BASS	-	☐	-
JAZZ BASS PICKUPS			
'60S JAZZ BASS	☐	-	☐
'75 JAZZ BASS	☐	-	☐
CUSTOM CLASSIC JAZZ BASS	☐	-	☐
H/W '60S JAZZ BASS	☐	-	☐
H/W '75 JAZZ BASS	☐	-	☐
JAZZMASTER/JAGUAR/BASS VI PICKUPS			
VINTAGE JAZZMASTER	☐	-	☐
H/W VINTAGE JAZZMASTER	☐	-	☐
VINTAGE JAGUAR/BASS VI	☐	-	☐

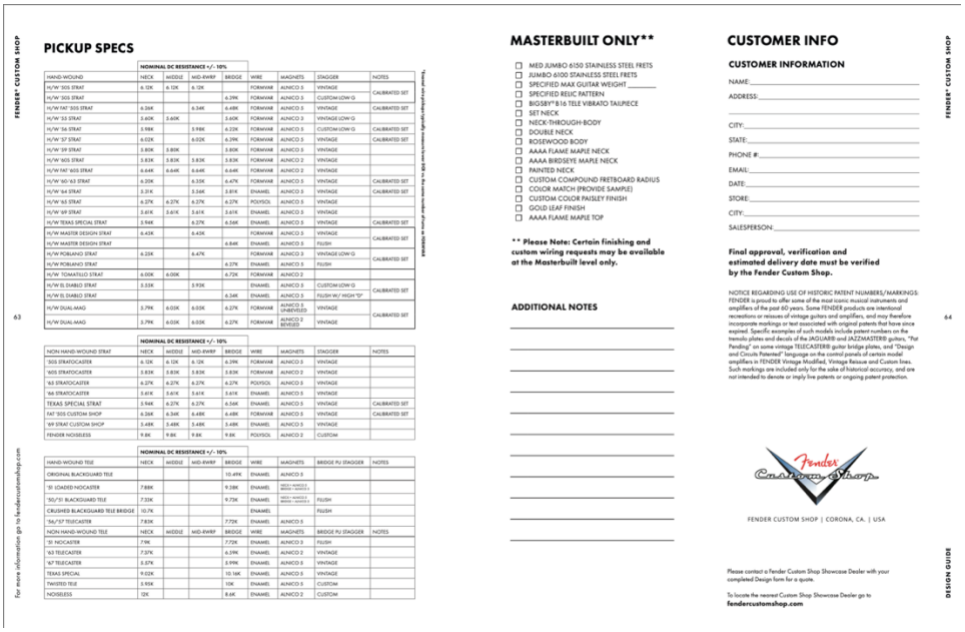


Figure 6 Fender Custom Shop's Specification Order Form

The above information is how to order a guitar from Fender Custom Shop. Actually, the complexity and difficulty of ordering a one-off guitar from HT1-1 are no less ordering a guitar than from Fender Custom Shop. When we click HT1-1's official website regarding "Design Your Own HT1-1 Guitar," we will see at least 42 different models from "1929 OOO" to "Vintage Southerner." If we click each model of these 42 options, we can see the introduction, video, and specification of this option. If this customer is not a professional player familiar with HT1-1 products, it's impossible to complete the ordering process. Because of the difficulty to complete the specification order form, Kevin, the dealer, can play his role to help local customer complete the order:

YC: So, is ordering a one-off guitar different from buying a mass-production guitar?

Kevin: Very different. Players can feel that this guitar belongs to me if he just plucks the string. Sometimes he even doesn't need to play it, when he sees the guitar he orders, he can feel that this is my guitar. In my opinion, sometimes customers just want this feeling. I mean, when he received his one-off guitar, he can feel that this is my guitar.

YC: Back to the previous question, focusing on Taiwan market. You notice that Taiwanese customers' preferences of their specifications are very different from American customers. What's the most significant difference?

Kevin: Taiwanese consumers are less practical than Americans. I truly believe that customers in Asia are very different from American customers. Especially Taiwanese players, Taiwanese customers, emphasize the decoration. They like their guitar shining and beautiful. As a dealer, I will tell my customers that this guitar's tone is good. However, if you don't pluck the string, you will have no idea why this guitar's tone is good. What Taiwanese consumers want is a good-looking guitar.

YC：So, will HT1-1 build different guitars for fulfilling the unique needs of Taiwanese customers?

Kevin: These are options. Customers can decide what he wants or doesn't want. However, some options will never be forgotten, especially the possibilities related to good looking. Some professional players will emphasize wood, skills, structure.

YC：HT1-1 has his official website. Why do customers not make an order via the internet directly? Why do customers order guitars from you?

Kevin: If you browse HT1-1's website, you can find his global dealers. And I am the only local dealer in the Taiwan market, right? I believe that some people will contact HT1-1 directly through the internet. However, I also believe that HT1-1 will tell them to contact me first. Custom-ordered is very complicated. The specification order form has a variety of questions and options. So, most customers will come back to me and ask for my assistance. By the way, buying a guitar from me will have a warranty and maintenance service.

Dealer's second job is to promote HT1-1's guitars. On December 7th, 2018, Kevin invited me to participate in the Guitar Clinic Tour of Sarah Longfield, an American guitar player who is also a popular YouTuber because of her two-hand tapping skill. As an endorser of Strandberg Guitars, a Sweden electric guitar brand deputing Kevin to sell its guitars in Taiwan, Sarah Longfield was invited by Kevin to have this live gig in Taiwan. Sarah Longfield adroitly used her two-hand tapping skills to play music with an 8-string Strandberg Guitar in this live gig. In addition, in the Q and A time, she also introduced the advantages of Strandberg and why she is glad to play a small brand's guitar rather than other famous big brands.

This is a very typical example to highlight how a small guitar brand can create its global commodity chains through the collaboration among a Sweden brand, an American guitar player as well as an internet celebrity, and a local dealer in Taiwan. In this live gig, Kevin played a role in promoting this Sweden brand by organizing the live gig in Taiwan. Sarah Longfield takes the responsibility to play this brand's guitar in Taiwan. In this live gig, Kevin even prepared free Strandberg's T-shirts and picks for the audience.

Undoubtedly, Kevin also actively promotes HT1-1's guitars in Taiwan. On June 3, 2020, Fang Wu, a Taiwanese guitarist, and songwriter, released a new single video on her Facebook account. In this video, she was using HT1-1's H/13 model. Undoubtedly, this video was immediately shared on Kevin and HT1-1's Facebook. Additionally, on November 26, 2020, when Fang Wu released this single, Kevin quickly shared this

news on his Facebook. Again, in this publicity photo (Figure 7), Fang Wu is holding HT1-1's guitar.

Again, just like the relationship between Kevin, Strandberg Guitars, and Sarah Longfield, the collaboration among Fang Wu, Kevin, and HT1-1 is another example to highlight how the craft-made guitar manufacturer's global commodity chains work. All production works, no longer spreading out of the world, concentrate at HT1-1's workshop in Hippie Town, but the promotion and sales can be extended out of the world.



Figure 7 The publicity photo of Fang Wu and her HT1-1's guitar

Besides, as a promoter, Kevin knows how to introduce HT1-1's advantages and strengths to customers. In the interview, Kevin told me a very critical difference HT1-

1 has. Still, many Taiwanese luthiers are unable to do: how to explain your guitar's advantages and the theory with which you build your guitars:

YC: As a professional dealer, how do you evaluate the works of Taiwanese luthiers? What are your suggestions for them?

Kevin: Some of them are good, of course, but not good enough. I hope that they can be more professional. Making a guitar is labor depends on theory. You have to understand why you do it in this way. I truly believe that they will have different ideas if they have a chance to work in a small luthier's shop for one or two months.

YC: Do you mean, for example, to work at HT1-1's workshop for one year?

Kevin: One year is too long. I mean, what these young Taiwanese luthiers need is experience. You know how to operate a power machine, hot to use a chisel, but do you know how to explain why you use a power machine here rather than a chisel? If I ask them why, maybe they are unable to explain the reason. However, if they have a chance to work with an experienced master for a short time and can spend 3 hours to explain how and why they work in this way. Fine, I will believe they are professional. Again, making guitars is a very sophisticated work, you should know how to explain the balance between good tone and strong structure. Like HT1-1, he knows how to command this balance, and he has his theory different from other luthiers. And he has built his guitars based upon this theory for several decades. This is his niche in the market. Many things are included in his theory, such as his tone, structure, even the different weather in Hippie Town. You should know why your product is different from others and make your guitars different.

YC: So, every luthier should have their different theory and must be able to explain his difference to consumers, right?

Kevin: Exactly. For example, those big brands, such as Taylor or Martin, have different theories to make guitars. Why do they release this model this year? I believe they have spent several years evaluating many

factors before they release this model this year. They always have their reasons: American guitar builders will think a lot before making it. This is a business. Just like you should prepare very meticulous slides for your customers to persuade them this model is for this player, that model has a good match for another player. In contrast, in my observation, many Taiwanese luthiers do not evaluate why they build this kind of guitar prior to making it. I'm wondering maybe they've never thought about it. They build this guitar just because they like this style.

Kevin's comparison between HT1-1 and Taiwanese luthiers offers us a dealer's perspective on promoting a luthier's guitars in the market. A luthier should have a unique personal theory, and this theory is the spotlight in the trade show. If a luthier is unable to promote his guitars, a dealer will be hard to help him open the market in a different country.

Kevin's third work is to offer maintenance and repair services. In fact, this service is very complicated because dealers should find a qualified mechanic to provide services in Taiwan. If customer's guitar needs a particular service only the original builder can provide, Kevin will take the responsibility to send it back to Hippie Town:

YC: HT1-1's guitar is a lifelong warranty, right?
Kevin: Yes.
YC: So, how do you offer the maintenance or repair service to fulfill this lifelong warranty in Taiwan?
Kevin: We have a partner in Taiwan to do this work. Now this collaboration works pretty well. Maintenance is related to the design of a guitar's structure. I remember I asked HT1-1 this question in NAMM Show. He told me that finding a balance between tone and structure is always contradictory: if you want a strong structure, you will sacrifice the tone

and vice versa. I believe they think about how to improve this dilemma every day. So, I don't worry about there will be big repair trouble happens on his guitar. The only thing I worry about is the maintenance. Taiwan is too wet, so customers should be very careful to maintain guitars. We always share with our customers information on how to maintain your guitars.

YC: For example?

Kevin: The most frequent problem we have is finishing. I received several cases that the color on the body's surface is contaminated. Finishing is beyond our capability, so we deliver it to Hippie Town.

YC: Sent it back to the US?

Kevin: Yes. Sent it back. It's just a shipping fee.

YC: Who pays for the shipping fee?

Kevin: We pay for delivering to the US. And it can come back with other newly ordered guitars. It's not a big deal.

YC: How do you believe that the local luthier is reliable?

Kevin: This luthier now we work with has been trained in Martin Guitars. Actually, we want to search for a professional guy to offer this service, but HT1-1's guitars did not have big troubles, except finishing. However, we still worry about this question. You know, we have sold out dozens of HT1-1' guitars in Taiwan.

Kevin's opinions offer us another perspective to analyze HT1-1's global commodity chains in Figure 4. Seemingly, Figure 4 only provides us a general map in which most local luthiers, including experienced builders and young artisans, create the industry networks in Hippie Town. However, Kevin's interview shows us that a local dealer can still play a significant role, such as receiving orders, promotion, and offering maintenance services, to increase the value to HT1-1's guitars.

How does HT1-1 evaluate Kevin's contribution to the sale of his guitars? In this

internet epoch, HT1-1 can communicate with customers worldwide via the internet without the dealer's help. If so, why does HT1-1 still have a local dealer to create his global business networks? Undoubtedly, HT1-1 appreciates Kevin's work:

> *HT1-1: Because selling direct when sustain us, if we make guitars and look for a customer, we might have to talk to five, ten, fifteen, twenty people. The same effort, each time, to sell one guitar. And many small guitar makers don't realize this. When they're selling guitars direct, if they could spend 30% of their time making their guitars, they are lucky. Right? They don't realize the cost of talking about the time.*
>
> *YC: I got it. Those dealers help you facilitate communication and save your time.*
>
> *HT1-1: They do available service. They don't just take the money. They do the work for selling guitars, and we don't have to. We can make guitars. Not we have to demand to sell direct, but we don't have the amount of time necessary to both build guitars and do the sales, and talk about it, right?*

HT1-1's story shows us a specific division of labor between guitar makers and dealers. The former focuses on manufacturing guitars; the latter sells guitars. Unlike most transnational corporations spreading out of their products globally, HT1-1, a craft-oriented guitar manufacturer, can wholeheartedly concentrate on production works at his shop with craft skills and CNC machines because his dealers will promote HT1-1's guitars in different local markets. In the craft-driven commodity chains, artisans can bring the production back to the United States, just like Fender Custom Shop in the late 1980s. Additionally, production becomes an aggregate of an artisan's mental, physical capabilities, and experiences. Guitar makers don't need to separate the whole production process into different stages to extract the maximum surplus labor from

deskilled workers anymore. In this craft-driven model, a guitar's value is not produced by cheap deskilled workers in developing countries. Instead, it is made by American luthiers who handle the whole production process, from the original design to the final finish. However, various actors from different countries, especially local musicians and dealers, still participate in the value-adding process. If traditional global commodity chains, based upon the global dispersion of production, emphasize the logic to exploit cheap labor force, the cheaper, the better; the craft-driven will stress a different thought, the more expensive, but the more precious. If our competitor's guitar costs 900 dollars and sells for 1,000 dollars, the old logic will ask us to build an 800-dollar guitar but sells for 900 dollars. However, under craft-driven thinking, we are encouraged to build a guitar that costs 5,000 dollars but sells for 10,000 dollars.

HT1-2: Collaborating with Local and Global

Now we may move on to another craft-oriented guitar builder's story in Hippie Town. As one of very few electric guitar makers in Hippie Town, Basically, the completion of HT1-2's skill formation is achieved in a nomadic journey among different luthiers, firms, and instrument stores around the United States. In the early 60s, he learned woodworking skills from several cabinetmakers in Boston. When he recalled the 60s, his judgment is "dark age of American small-shop luthiery and guitar repair" because almost nobody out of the factories knew anything about guitar-making and repairing. In the late 60s, he co-founded Alembic Inc[40]., an instrument company

[40] Alembic Company is not only a common instrument company, but also a cultural landmark to witness the history of counterculture in California in the 60s. For example, it offered the recording

making preamps, pickups, electric guitars, and basses in Novato, California (later moved to Santa Rosa, California). During the Alembic period, his works focused on electronic things, including the design of speaker cabinets, amplifiers, and guitar-making. After leaving Alembic, he joined Gibson in 1988 for several years, and in 1992 he worked at Westwood Music in Los Angeles for doing repair jobs.

A variety of reasons resulted in the final decision made by HT1-2 to settle down in Hippie Town, including his production networks, weather, the music scene in Bay Area:

YC: Why do you choose to create your guitar company in Hippie Town?

RT: I got two points in LA where without growing a shop I had. And it's either commit just living here with my wife and with what I do, and I had a two-year-old son at that time. And there are opportunities to move out to live here, and my son's godfather, Martin Simpson[41], lived here the time, a British guitar player, and also HT1-1 is my friend. And he even tried to get me to move out here. So, HT1-1 is another reason. And I first moved out; my shop was in the same building with him at the time. You know, we share the roof in that way.

YC: Can I say it's your social relationship finally to decide you here?

RT: Yeah. Hippie Town is… the only downside of Hippie Town is the cost of living here. But it's a fantastic place to build guitars. The weather is very moderate, the music scene is good, you got easy access to the three international airports, the bay area is close to the hand, San Jose is right over here, the ocean is right over there, the redwood is right over here.

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services to, and designed the public address system for Grateful Dead, a legendary rock band in the 60s whose documents, photos and notations are collected at McHenry Library of UC Santa Cruz. In addition, Owsley Stanley, one of the co-founders of Alembic, who designed the live music sound system for Grateful Dead, is another key figure in the hippie movement known by privately manufacturing LSD in his rented basement in 1967.

[41] Martin Simpson is a British acoustic guitar player and a song writer. In the early 90s, he moved to Hippie Town with his wife, and continued his music career in the US.

In this conversation, HT1-1's name was mentioned again. HT1-2' opinion again proves that the production networks play an essential role in attracting guitar builders from other places to Hippie Town. There are two dimensions, vertical and horizontal, to explain how the industry networks function here. In the vertical dimension, HT1-1, and his cohorts in the first generation, hired young artisans or graduates from school to work at their shops. In the horizontal dimension, HT1-1 also invited his luthier friends to move to Hippie Town to create their shops here. Both dimensions work together to enlarge and strengthen the social relationships among guitar makers within the networks in Hippie Town.

Despite part of the industry networks in this isolated small town nearby Bay Area, similar to HT1-1, HT1-2's market is global:

HT1-2: There has been actually very little official recognition of the events of guitar industries in Hippie Town. People know about HT101's place because he's been here for thirty years. But you know, I mean… The funny thing is there are about 20 shops of guitar makers in this area. But…really, frankly, very little of my business is local.

YC: Really?

HT1-2: My customers are all of the places.

YC: Overseas?

HT1-2: Yeah, and all over the country.

YC: Do you sell your guitar overseas? Do you sell your guitar overseas by having an overseas dealer or by internet? Do you have any quotas in different countries?

HT1-2: Yes, I do overseas. I have a dealer in Hong Kong, Singapore, new dealer in London.

YC: How do you find your appropriate dealer?
HT1-2: They find me.

HT1-2 is another example to prove that the craft-oriented guitar industry in Hippie-Town is highly globalized. All production processes can be concentrated in his small workshop, but customers can come from anywhere worldwide. In addition, his global dealers will help him sell his guitars.

The next question is how HT1-2 constructs his guitar-making philosophy. How does HT1-2 define the idea of craft? Does craft-made mean the tradition? Able to command the complete knowledge and skills to make a guitar independently is just one prerequisite. In the interview, HT1-2 told me another essential factor, repair experiences:

> *I don't even think you can become a good guitar maker just building guitars. I think if you want to be a good guitar maker, you should spend at least three years in a really busy repair shop, doing guitar with her all different kinds. I think five years is better. And I think spending time in repair shop working on many different brands of instruments, you learn so much about what is right what is wrong. You learn to deal with musicians. People come out of guitar-making school immediately think they are guitar makers are never can be as good as somebody spends a lot of time…repair can restore instruments.*

Here we learn another important difference between a craft-oriented luthier and a deskilled or semi-skilled worker at a mass-production factory: the skill formation of a good luthier is based upon a variety of repair experiences in the real world. Making one or two project guitars in a luthiery school is not enough, much less making guitars based upon a blueprint drawn by a guitar designer at a factory. Moreover, HT1-2

mentions another point, deal with musicians, often overlooked by young makers who only focus on guitar-making. Only in a repair shop, a luthier will have a chance to deal with various customers and different guitars. How to correctly figure out the problems of each guitar you met is an important lesson to make you better understand the structure and theory of guitar. Then, finding a method to quickly and cheaply repair the guitar is a more difficult lesson to learn. Finally, almost all luthiery schools fail to teach their students how to deal with customers. It means that students only learn how to build or repair guitars in school, but they don't know how to do business.

HT1-2's advice to young luthiers, working in a busy repair shop, also enriches our understandings of craft because previous scholars only emphasized the aspect of labor. In fact, craft-made is a manufacturing work based upon manual labor and service work to satisfy customers. In HT1-2's opinion, Repair is better training for an inexperienced artisan to learn both manual labor and service work than making guitars.

Moreover, HT1-2 is another guitar builder using CNC. He very clearly expresses his appreciation of new technology. When he shows me his CNC for carving guitar necks, he told me that "it's better than me." In addition, on his official website, he clearly said:

> *Innovation has always been very for us so we don't shy away from modern technology. Pairing these traditional techniques with precise CNC fabrication and 3D printing truly makes for the highest quality product.*

From HT1-2's stories, we may learn the following perspectives. First, the rise of

the craft-made guitar industry combines local industry networks and global business connections. Unlike big transnational corporations spreading out production worldwide to reduce production costs, craft-made shops are inclined to concentrate production in their small shops and sell products in the global market by working with local dealers. Second, the skill formation process is a long and nomadic journey. A luthier should receive various learning experiences in different shops and firms to learn experiences and skills. Finally, craft work should include many multiple aspects. Labor is only one of them. If an artisan is only good at making guitars, this artisan is not seen as a good luthier. Maybe this perspective can explain why many artisans with excellent skills fail to survive in the market.

1. HT2-6: Apprenticed to Many Local Builders in Hippie Town

Despite the only one guitar maker in the second generation, HT2-6's stories may help us understand the growth of the guitar industry networks in Hippie Town. The completion of HT2-6's skill formation, similar to HT1-2's nomadic journey, is based upon the aggregate of learning experiences with different masters, including HT1-1, HT1-2, HT2-1, and HT2-4. Before HT2-6 moved to Hippie Town, the production networks, created by the first and second-generation builders, had been made here. Being part of the networks is the only reason HT2-6 moved to Hippie Town.

YC: Why do you choose to have your shop here? You know, you have a lot of shops here.

HT2-6: Actually, I move here for guitar-building because here is obviously a big maker where everyone wants to make guitars, and the climate is nice here. You know it's pretty amazing to be able to have my shop door opening…not be…just about the humidity level.

YC: The weather here is very good.

HT2-6: Yeah, I am here for 11 years. I came here for guitar-building.

YC: You talked about when you were 19, you worked for HT1-1.

HT2-6: Yes, it's natural, and I love here. I didn't want to leave. So I start my guitar shop here. You know, everyone in town has kind of their own thing, which is…I don't feel like we are in direct competition with each other, most of the time, you know. Some people are acoustic builders, some people are solid body of electric builders, and everyone has his own thing.

Obviously, all these masters offer him a great chance to earn various opportunities of practice. In addition, luthiers within the industry networks collectively construct a public atmosphere to help each other, so HT2-6 believed that moving to Hippie Town is a good chance for learning skills. In the following passage of the interview, by reviewing his learning and working experience with HT1-2, we may learn how the repetitive practices under a master's instruction play an important role to improve a young artisan's craft and skill:

Thankfully, HT1-2's place is really not an assembling….it's great. I mean there's kind of…one person will build….I started out of there for building bodies for the HT1-2's shop. All we there run all processes. You started out just learning like most basic tasks. And then you do that hundreds of times, and then you move on to other thing, and then, so you can really get it down, you know, even…like bending the set of sides which is…something every luthier needs to learn how to do…if you've only done it few times, it really can't a done thing task. But once you've done it, like hundreds of times, it

just…it can be part of you, and you can really just make it happen no matter what kind of materials you're working with.

Obviously, both HT1-2 and HT2-6 show us a blind spot in the definition of craft from Kathryn Dudley's concept, God-given gift, which only focuses on the relationship between an artisan and his guitar. According to Dudley's argument, guitar makers will gradually understand why the craft is a God-given gift, which means an artisan's authentic self in the relationship between this artisan and the guitar. It's like tacit knowledge, which cannot be transmitted with language. You can't apprehend it without pouring yourself into the guitar you're making. Therefore, Dudley argues that "guitar and self have innate potential for cross-species communication." (Dudley 2014:138)

Only focusing on the relationship between an artisan and the guitar this builder is working for without considering the social context is the blind spot in Dudley's God-given gift. In HT2-6's experience, despite the importance of repetitive practices, we can't overlook that the social context is also important in HT1-2's workshop. In fact, the completion of the industry networks in Hippie Town proves that the environment is an important factor in enhancing an artisan's skill standard. That's why young builders move to Hippie Town because they know that the craft-oriented industry networks in Hippie Town matter to improving their skill.

As a young luthier, HT2-6 has to work with other experienced luthiers to earn more experience. Meanwhile, he tries to search for buyers to sell his guitar. Different from his employers whose dealers will help sell guitars, HT2-6 has to sell guitars by himself:

YC: Do you still remember the first time you sold your guitar? How long ago?

HT2-6: It's probably…no more than one year ago (2014), my first-time guitar sold…I made the first two guitars, because we want to go on this trip, but I didn't have very much money, and a friend just came to me, and like "well, why don't like to build the guitars on my own and sell them." You know, getting…pay hourly build the guitars for someone else. Make my own products and sell them, and we want to go on a trip, and doing that process, that kind of…we struggled to begin my business.

YC: Do you know your customer before you receive the order, or you don't know them?

HT2-6: Not that one. I just make to…I basically build what I thought was cool.

YC: So you don't know your customers, and you just built them and sold them?

HT2-6: Yeah. I built two of them together. One of them went to a musician in New York. She was a Jazz musician. And then, the second one went to a local musician.

HT2-6's experience of selling guitars proves HT1-1's advice that young luthiers will spend time on selling guitars and can't only focus on building guitars. For example, he will spend time uploading pictures of his guitars on his Facebook for promoting his guitars:

YC: Why do your customers make sure that your products are what they want?

HT2-6: I do post a lot of pictures of my instruments, like my building process. And like when someone does make an order, actually, allow them to be involved…not allow them to involve in actual building instrument, but you know, I'll sent them pictures and really keep them…hopefully keep them excited about their guitar…because you know, sometimes they take six months.

YC: So in the future, will you always insist on hand-made, or maybe you will try to start machine-made?

HT2-6: I'm not sure. I mean my…you know, it's my ideal now. But my opinion could totally be changed after carving a few hundred woods…which actually, it takes some physical labor to actually carve a piece of wood, but I think I'm more inclined to make everything by hand, and I'm not trying to make a lot of guitars, rather maybe like 20 guitars a year, and just make really nice ones… like other people taking on…maybe someday I will have one apprentice, but I'm not really inquiring to start a big factory, because you know I feel like….that leads to not getting to build guitars as much as you want. I know HT1-2 complained past about….have you beyond the phone, making orders, sometimes it's just nice to go in the shop, not have anyone bothers you, and you just build. And I think the bigger company you get the more people working for harder. You do that. That is the part I don't want to lose.

In HT2-6's interview, we can figure out the difficulty of a young luthier in their business. On the one hand, the lack of dealers results in an increased workload on making guitars and selling guitars. On the other hand, productivity is hard to improve because young luthiers only have limited hand tools and power tools to make guitars. Hence, living in Hippie Town is a wise decision for these young artisans. First, they may earn many useful experiences if they can work with experienced masters. Second, they will receive payroll to cover the living expense when they can't find customers to buy their guitars.

The mobility from an apprentice to a master is similar to climb up an invisible ladder towards a luthier. In order to reach the top of this ladder, young luthiers have to work with experienced luthiers for several years, not only for learning skills but also for earning money and building guitars for sale at off-work time. If you are lucky

enough to make orders and customers, you can leave your masters and open your independent shop. From this perspective, HT2-6 can be seen as a successful luthier who can climb upwards.

HT1-3: From Hippie Town to Global Market

If HT1-1's story highlights how the cooperation between a builder and his dealers can create their global commodity chains through which the production process can be re-concentrated in a luthier's local shop. HT1-3's story shows us a different pathway towards globalization through the collaboration among other guitar builders around the world and in the local community, regardless of the variety of their production models, sizes, and cultures.

HT1-3 began built guitars in the mid-1970s, but about 1982, he sold out everything. And then, again, he started in 1990. So, he had done it for eight years from the mid-70s to 1982, and without doing it for eight years, and restarted again for 30 years. It's worthwhile mentioning that he was awarded one of the first California Arts Council grants in 1978[42].

HT1-3's globalization journey began in 1995. In that year, he was invited to go to Paracho, Mexico as a writer for Acoustic Guitar magazine to cover guitar class

[42] In the interview, very surprisingly, HT1-3 almost forgot that he was rewarded. One day when he saw in a newspaper, and read a little article "Funding, artist funding available, grants application California Art Council." So HT1-3 went to the office of this council in Hippie Town and got the application. Then he spent five dollars to buy a typewriter at a flea market and completed the application form. In the application form, HT1-3 attached several pictures regarding his works and personal information. Finally, he got this award.

originally given by Jose Romanillos, a Spanish guitar maker who taught how to make guitars around several countries. This is a good chance for HT1-3 to know luthiers in different countries and help him think about how to make guitar differently and do business. He even established a workshop and hired some artisans in Paracho in 1996.

Besides teaching how to make guitars in Mexico, he also worked with guitar builders in China. Why China? HT1-3's reason is very persuasive: "I went China because it's a business opportunity; and I thought maybe I can make money out of it." Unlike his job in Mexico, in China, HT1-3 works with a mass-production factory's owner, Chiang, the president and founder of MMI Guitars[43] in Guangzhou, China, and helps MMI Guitars improve guitars' quality. Different from small production, craft-oriented boutique shop, MMI Guitars Company is a mass production company that builds around 70,000 guitars a year with 200 employees. HT1-3's job is to design and set up quality control for MMI Guitars. From 2000 to 2015, he spent 15 years cooperating with different Chinese partners in the guitar-making industry in China. His specific working experience in both craft-made boutique shop and mass production factory gave him a chance to reflect the difference between these two modes of production deliberately. Very interesting, his experience shows us a possible combination of these two modes of production:

YC: Do you think there is a difference between a hand-made artisan and a

[43] I visited MMI Guitars in the summer of 2016. This brand was founded in 2005 by a retired Chinese soldier who had worker in a guitar factory invested by a Taiwanese. In 2006, the owner of MMI Guitars collaborated with a Germany guitar company and HT1-3 and cofounded a new brand, Martinez Guitars. When I visited the founder in his office, on the wall a picture of HT1-3 and the president just popped up in front of my eyes.

mass production worker?

HT1-3: It is just nothing you think about it. I mean, as a supervisor, because I am a designing supervisor in the factory there. I certainly try to bring the best out of those workforces. I want those guitars to be the very best guitars they could be, which is why I come in by having built the best guitars. And when I went to China to teach guitar making to business partners, to a business associate, we didn't go in to make, to start making a guitar factory. No, we went into hand-made, the first guitars.

YC: You mean you teach them hand-made?

HT1-3: Yeah, because we get a higher standard.

YC: Ok.

HT1-3: And then, it started to keep more commercial, and instead of you get more machines, more unskilled workers, or more just narrow skilled workers. And yet, you still talk to some core group of people, very high standard. So that's different. Thing going into a factory is just making a bunch of…just cheap guitars. Can you try to make a cheap guitar better? I tried to do that, you can't be done; you can't do it. So that's something I learned from the past. So when I went to China, they said we want to run a factory, I said, no. If you want me to do this, you set up a small workshop by hand. We make the first guitar all by hands, all by hands, and then, we start to add more technology, and more labor, and more management. That way we will keep a very high standard, at all of our levels.

YC: I hope I don't misunderstand you. You still insist that, hand-made even in Guangzhou factory, but your productivity there is still 50,000 guitars annually?

HT1-3: Yeah. Are those as good as hand-made ones here? No, but they're supposed to be, but they try. They try to be as good. They really do. Now, they choose cheap materials, faster process, but just taking a long time to do something doesn't mean it can be better. It doesn't guarantee that it is better, just because it takes longer to do. That doesn't guarantee it. Now, even here, you know, I got five workers here. Then some peoples would say, "oh, you mean you didn't make everyone's guitar?" Some guitar makers, or some guitar buyers, they want the guitar made by me, only me. Well, that's sort of boring. Sure, I can make a nice guitar. I can give it to them,

but with my team, I can make many nice guitars. And then I spread them out. And then all those guitars are very nice, just nice. They are just good. But they fed many more people.

In this long passage selected from my interview, not only does HT1-3 show us a possible combination of craft-made and mass production, but he also points out a theoretical weakness in Harry Braverman's research on scientific management, especially his analysis on the separation of conception from execution. In Braverman's argument, scientific management is based upon the new division of labor between traditional blue-collar workers and "new working class." The former is deskilled workers being designated to work in the assembly line; the latter is engineers, technicians, scientists taking the responsibility to design the rationalized production line for reducing the waste of time and the cost of production. In Braverman's analysis, new working-class workers are supposed to help capitalists rationalize the entire production process and make it more profitable. However, Braverman's concept fails to explain why a Chinese mass-production factory invited HT1-3, a craft-oriented luthier, to teach Chinese workers how to make expensive and high-end guitars. Figure 8 and Figure 9, shot by me at MMI Guitars in 2015, show us how female workers at MMI Guitars Company are doing the French polish by wiping the top of a guitar with shellac, a resin secreted by lac bugs that can be dissolved in alcohol and used as a colorant on the top of the wood.



Figure 8 A female worker at MMI Guitars is finishing a guitar by using shellac



Figure 9 A female worker is finishing a guitar by using shellac

The cooperation between MMI Guitars and HT1-3 proves that the distinction

between craft-made and mass production could be blurred in globalization: skillful luthiers are ready for the trip to anywhere and collaborate with anyone so long as it is lucrative. In this global flow of craft, any collaboration is possible: you can either make money by working with local dealers worldwide or selling your skills to a mass-production factory in a developing country.

In addition, HT1-3's boutique shop remains in Hippie Town. However, HT1-3 doesn't hire artisans directly. Some of them are independent contractors receiving the outsourcing works from HT1-3. In his team, HT1-3 is a supervisor monitoring the whole production process. As a celebrity, he was asked whether or not he is willing to make a guitar independently, but he rejected this order:

> *some guitar buyers, they want the guitar made by me, only me. Well, that's sort of boring. Sure, I can make a nice guitar. I can give it to them, but with my team, I can make many nice guitars. And then I spread them out. And then all those guitars are very nice, just nice. They are just good. But they fed many more people.*

Why does HT1-3 reject this order? Again, the role he plays in his boutique shop is not only a guitar builder but also a supervisor. As a team supervisor, the most important job he has to do is guarantee that all guitars made by his team members are high quality. HT1-3 doesn't need to build guitars by himself, as long as all guitars built by his team, including apprentices, employees, or independent contractors, can fulfill his expectation under his supervision. Just like a chef in a French cuisine restaurant, his/her job is to manage the kitchen, rather than cooking by himself/herself.

Compared with HT2-6, a young artisan just creating his independent shop and desperately climbing up the ladder towards luthier HT1-3 is at a different position of this ladder where his work is to manage his team in Hippie Town and to supervise his Chinese partner's factory. The higher place you are on this ladder, the more globalized collaborations and chances you are supposed to have.

HT3-3: Climbing up on the Ladder towards Luthier

HT3-3, HT1-3's former apprentice and independent contractor now creating his brand in Massachusetts, is another excellent example of how this ladder towards luthier works.

After graduating from an art college in 2002, HT3-3 enrolled in Roberto-Venn, a luthiery school in Arizona, for learning craft-made guitar skills by six months. Then, he went to Hippie Town and worked with HT1-1. In the interview, HT3-3 told me that luthiery school plays an important role to train artisans for boutique shops:

YC: I know a lot of other apprentices from Roberto-Venn.
HT3-3: Yeah. Because that's 2003, that's how some boutique shops[44]…they called Roberto-Venn, "Who's good?" "Who do you have?" And then Roberto-Venn sent them to California.
YC: Really? They came to Robert-Venn directly?
HT3-3: Yes. You hired someone, and you know they already committed to building guitars. You know, they have some…
YC: This communication can make sure, guarantee, that Richard will always

[44] In interview, HT3-3 very clearly told me who called Roberto-Venn for the recommendation of graduates. In order to protect these boutique shops' confidentiality, I decide not to disclose any private information of these shops and their owners.

have those qualified guitar builders from school. That's what I mean.

HT3-3: Yes.

YC: When you studied in Robert-Venn, did you ever try to receive any financial aids or grants? This is about the US government because it encourages students to go to vocational school. So they have some grants, scholarships for students. Or did you have a loan?

HT3-3: Yes, loan.

YC: So you borrowed money from another place?

HT3-3: Yes, a student loan.

YC: How about the tuition in Roberto-Venn?

HT3-3: 10,000 dollars.

Here we have to figure out a difference between the first generation and later, especially the third ones in the industrial networks of Hippie Town in terms of their skill formation. When the first-generation builders learn how to repair or build guitars, almost no one paid tuition fees to their masters, let alone enrolling in luthiery school. They were self-learners or learned the knowledge and skills of guitar-making from other luthiers. However, if you want to find a job in the guitar-making industry, especially at a boutique shop, you will be suggested to enroll in a luthiery school first. In addition, you have to pay high tuition fees for learning essential knowledge and skills.

The first job HT3-3 found after graduating from Roberto-Venn is the finish department at HT1-1's workshop in Hippie Town by nine months. Then he moved to HT1-3's shop because he began to be interested in a more natural approach to finish, such as French polish, and HT1-3 is worldwide famous for his use of French polish. Under HT1-3's instruction, HT3-3 learned the finishing skills of shellac, resins, oils, and spirit varnish recipes.

Not only did HT1-3 give HT3-3 a chance to learn the skills of natural finishing, but he also helped HT3-3 receive guitar repair cases for a side business. And this is what HT3-3 needed to support his family, including his wife and two children:

YC: This is a problem, because you have no connection there. Ok, now, how do you have your repair work from the internet or your social connection?
HT3-3: All the ways. HT1-3 is awesome. I get a lot of works through his dealers. So those buy old classical guitars, if they have a problem, they will send them to me, after restoring them, I will send them back to them and make more money. So it works with them.
YC: But of course this works HT1-3 will not charge you because this is the deal between you and his dealers?
HT3-3: Yes, but HT1-3 makes the introduction.
YC: HT1-3 is amazing. He takes care of you guys in a different way.
HT3-3: That's what he does. He does this for everybody here. Everybody in this shop…in experienced luthier, he just sorts of….he collects us, and takes care of us. I think this makes us feel better…

Now we can more clearly explain the function of the industry networks in Hippie Town. First, inexperienced artisans need to participate in the networks because they can learn different skills and earn various experiences with the master they are working for. Young artisans' participation is also beneficial to boutique shop owners because they can spend less money and time to train luthiery school graduates. Second, salary is another reason for young luthiers to work with a boutique shop owner. It's almost impossible for a young artisan to open his shop after graduating from school immediately. Before earning enough money and experience to open an independent shop, working with a master is wise to have a stable salary. Third, and most importantly,

working with a master means you are part of the industry networks in which you will know people, including customers, dealers, and colleagues, who may offer you other business opportunities.

As an independent craft artisan, compared to a factory worker only focusing on production, the dexterity of craft is not enough because an artisan has to sell the products directly on the market. In other words, an artisan should also know how to do business. Having adroit skills is not enough to survive in the competition because the skillful craft you learned can only promise the quality of your product but can't increase the sales on the market. This is also the weakness of luthiery school education, which only teaches students guitar-making skills without business knowledge, including promotion, marketing, accounting, etc. Therefore, working with a master offers these young graduates a chance to observe how to do business.

Now, not only does HT3-3 manage his shop in Massachusetts, but he also works as a local repair technic for HT1-3. If HT1-3's customers have any problems with their guitars bought from HT1-3, they can send their guitars to HT3-3's shop. In HT3-3's story, we can see how he has gradually climbed up on the ladder towards luthier from a luthier school student to an independent shop luthier: learning skills in school, moving to Hippie Town and participating in the industrial networks, hired by different builders for learning other skills, creating his business networks through his master's help, finally creating his shop.

HT3-4: Give You a Chance to Try My Bass

HT3-4 is another hired apprentice at HT2-3's shop. Like HT3-3's career development on the ladder towards luthier, he graduated from the Guitar Craft Academy of Musicians Institute in Hollywood, California, a six-month luthiery program then went back to Bay Area for learning skills and making money. In the beginning, he worked with Joseph Zon, the founder of Zon Guitars, for learning bass guitar-making for one year, then he was hired by HT1-1 in Hippie Town for another year.

HT3-4's itinerant experience among different luthiers illustrates two important lessons all young students in luthiery school should know before graduating. First, all you learn in school is not enough to guarantee you career development in the future. In the real world of the craft-oriented guitar industry, you need to learn more from experienced luthiers. Second, the industrial networks in Hippie Town constructed by the first generation and second-generation builders attract young artisans to move to Hippie Town, despite a small and remote city far away from the market. The development of the guitar industry in Hippie Town is another example to highlight the importance of agglomeration economies in the post-Fordist labor markets (Peck 2003). However, different from previous studies focusing on the analysis of a firm's activities in agglomeration, in Hippie Town's guitar industry networking model, we can observe both firm's activities, such as their global collaboration with dealers and their outsourcing contracts, and laborer's flow among different shop owners.

The job-hopping among different luthiers in Hippie Town also has a fixed pattern to follow. According to the interview of my limited cases (HT3-3, HT3-4, and another

young apprentice), inexperienced artisans are more likely to work with HT1-1 as their first job in Hippie Town. Then they will move to other builders who are only willing to hire experienced apprentices. But just like other occupations, whether or not you can find a job on the market varies every year.

> *HT3-4: HT1-2, the first place I want was HT1-2, and he wasn't hiring, and maybe that's, they told me, because I didn't have experience. That's why I started at HT1-1. I left HT1-1, and I worked to other jobs for few months, and an old co-worker told me that HT1-3 will hire me, so it's totally by chance.*

Now, we have to answer a question: why should apprentices work with different luthiers, and the more, the better? Because in the craft-made world, there is no standard operating procedure: ten guitar builders may have ten other skills to do the same work. The wiring diagram of Fender P-bass is a good example. In figure 10 and figure 11, there are two different wiring diagrams applicable to Fender P-bass, and different luthiers will choose different diagrams based upon their preference. As an apprentice, working with a different luthier indicates learning a new wiring diagram.

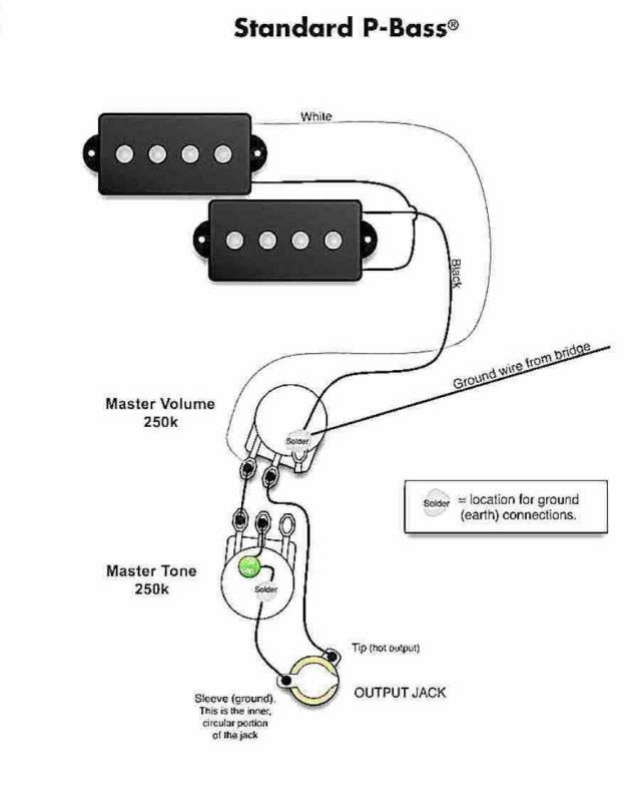


Figure 10 The Diagram of Fender P Bass (1): In this diagram, the capacitor connects the third terminal of the master tone pot (potentiometer) and the top of the pot (for ground). And the first terminal of the tone pot connects the fifth terminal of the master volume pot.

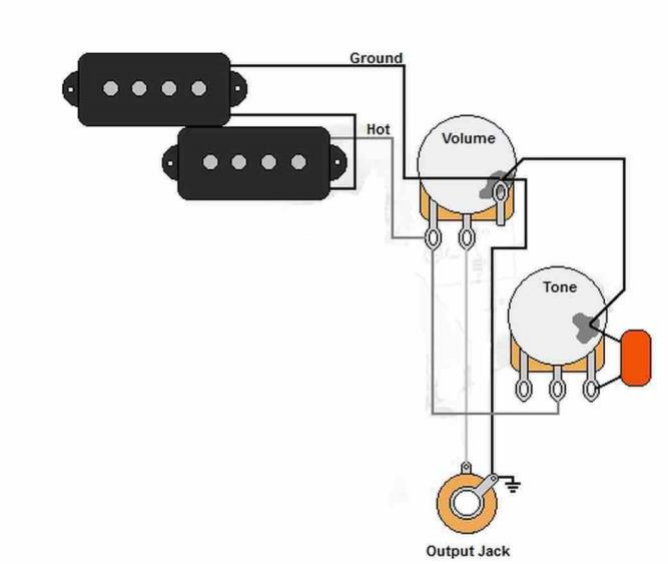


Figure 11 The Diagram of Fender P Bass (2): In this diagram, the capacitor connects the first terminal of the tone pot and the top of the pot (for ground). And the third terminal of the tone pot connects the fifth terminal of the volume pot.

Working with different luthiers also means the expansion of connections and the increase of business opportunities. For example, HT3-3 and HT3-4 will introduce repair cases to each other:

> *HT3-4: Finish repair I do it by hours, which I don't get many, HT3-3 is a finish master, we've kind of team that source…if he gets some source of structure repair, he doesn't want to do he will give it to me.*

In this passage, we have to notice that the networking model in Hippie Town plays a critical role in circulating business information among members within the networks. Not only does it work for luthiers, but also apprentices. The circulation of information can mean the introduction of business opportunities. When HT3-4 is able to receive

some repair cases, he will need to share business opportunities with HT3-3, his colleague at HT1-3's shop, especially if their strengths are different and can be mutually beneficial to each other. For example, HT3-3 is good at finish and HT3-4 at woodworking, HT3-3 may introduce the case of guitar body repair to HT3-4, and HT3-4 may tell his customer to ask HT3-3 if his customer's guitar needs to be painted.

The circulation of information within the networks also infers the circulation of inside information of job opportunities. For example, through the circulation of the message from another hired apprentice, HT3-4 knows that HT1-3 is hiring. From this perspective, maybe hired by HT1-3 can't be attributed to by chance. Instead, it could be seen as a by design result-he is hired by HT1-3 because of his previous working experience with HT1-1. In this networking model, everyone knows each other. HT1-3 can easily inquire HT3-4's performance at HT1-1's shop. Job opportunities on the market could vary every year, but how a luthier decides to hire people can be determined by information he gets through the networks.

In fact, HT3-4's side business in off-work time includes both guitar repair and guitar making. In other words, he tries to sell his custom-ordered guitars. In our first interview, HT3-4 gave me the business card of this independent brand: HT3-4 Guitars. This business card means that he created his independent workshop:

YC: Who is your first customer?
HT3-4: One of my friends, he plays in a touring band.
YC: Why did he decide to buy your bass?
HT3-4: I convinced him to.
YC: OK.

HT3-4: He asked me…he said he would look for a new instrument to tour with. And he said, can you recommend, should I buy Fender? And I said, no, you should…

YC: Try my…?

HT3-4: You should take a chance, give me some money, I give you the instrument. And it worked out, and he got it very cheap.

HT3-4's first experience to sell his guitar explores a fact that achieving the top of the ladder in the craft-made guitar manufacturing world results from both your craftsmanship and entrepreneurship. The former means a luthier's skill and knowledge to make a boutique guitar; the latter indicates how this luthier can sell guitars to customers, especially unknown consumers. In this case, HT3-4 did not emphasize his craft and skill. Instead, he persuaded his friend to better off trying something new rather than buying a Fender's bass. "Take a chance, give me some money. I give you the instrument." In this statement, we receive no information about HT3-4's craftsmanship. In contrast, this compelling statement proves that HT3-4 is a good salesman for selling his guitar to his friend because he deals with his friend and successfully sold out his first bass.

Unfortunately, the importance of entrepreneurship is often overlooked by luthiery school education and young artisans. Making a guitar as a birthday gift for your girlfriend is very romantic, but selling it to a customer, especially an unknown customer, is different. In the latter case, you have to prove the value of your guitar in front of customers. In order to prove your product's value, you have to respond to countless questions: "Is it cheap enough? If it is expensive, why should I buy a guitar made by

an unknown young luthier rather than a remarkable luthier with goodwill? Is your guitar's playability better than other brands? How many years of warranty can you offer? Where can I find a repair or maintenance technic when I bring this guitar with me to my concert tour?" Therefore, we should always keep in mind HT1-2's advice to young luthiers in this following passage:

> *YC: HT1-1 hired a lot of people working for him before and then left him and created their own businesses. It seems to me that….young luthiers worked for the old generation for several years and then go out and independent to create their business?*
> *HT1-2: The problem is a lot of them are just fine guitar makers, but they don't have to run a business.*
> *YC: They have other jobs for earning their living?*
> *HT1-2: Well, it's really…the thing is a lot of young guitar makers…they get really excited, they get orders, and the first 10 or 12 instruments they made sell very quickly, because they sell to their friends. And then, the reality is…it's harder and harder and harder…The more instruments you sell, up to the point, the harder is to sell to the next ones. Pretty soon…are you selling direct? Are you selling to stores? Or are you selling to consignment? Can you afford to give discount of the guitar stores? If you can't…in the level of business that I want to be. You know.*

All questions HT1-2 asked raised from his observation on young luthier's career development indicate how difficult it is to survive in the craft-made guitar market. Of course, your skills matter, but good quality of craft is not sufficient enough to create your career and goodwill. You should also learn how to run a business.

Summary: How Does the Ladder towards Luthier Work?

The production networks composed of luthiers in Hippie Town, including all builders, form the first generation to the third one, can be superficially seen as a flat networking model in which everyone, including masters, independent contractors, hired apprentices, independent shop owners, is playing a specific role to make the industry function in Hippie Town's everyday life. However, in this flat model, we can figure out a vertical ladder for a young artisan to climb up from the bottom to the top: (1) student in luthiery school, (2) apprenticeship in a boutique shop, (3) pieceworker, and finally, being an independent luthier. In every different step, a young artisan is supposed to learn something different from the previous stages.

Student in Luthiery School

Generally speaking, a free-apprenticeship education in the craft-made guitar industry is gone nowadays. Only very few luthiers are willing to hire a fledgling apprentice. If you want to be a guitar builder, going to school will be the first suggestion you will receive from luthiers. The interaction between Isaac Jang, a former instructor at Musicians Institute's Guitar Craft Academy and a rising star in the craft-made acoustic guitar industry in LA, and Kathy Wingert, a famous female guitar builder in Southern California, is one of the most trenchant examples to witness this change. When Isaac Jang graduated from high school at 18 years old, he asked Kathy Wingert for an apprenticeship. According to Kathy Wingert's recall, Isaac Jang, at that moment, knew nothing about guitar-making, but he said what these luthiers heard many times:

"I'll sweep the floor; I'll do anything." Kathy Wingert very tactfully rejected this young guy and suggested that he should enroll in a luthiery school or find a job in a repair store. In addition, "she also scolded him for not being in college" (Perlmutter 2016:64).

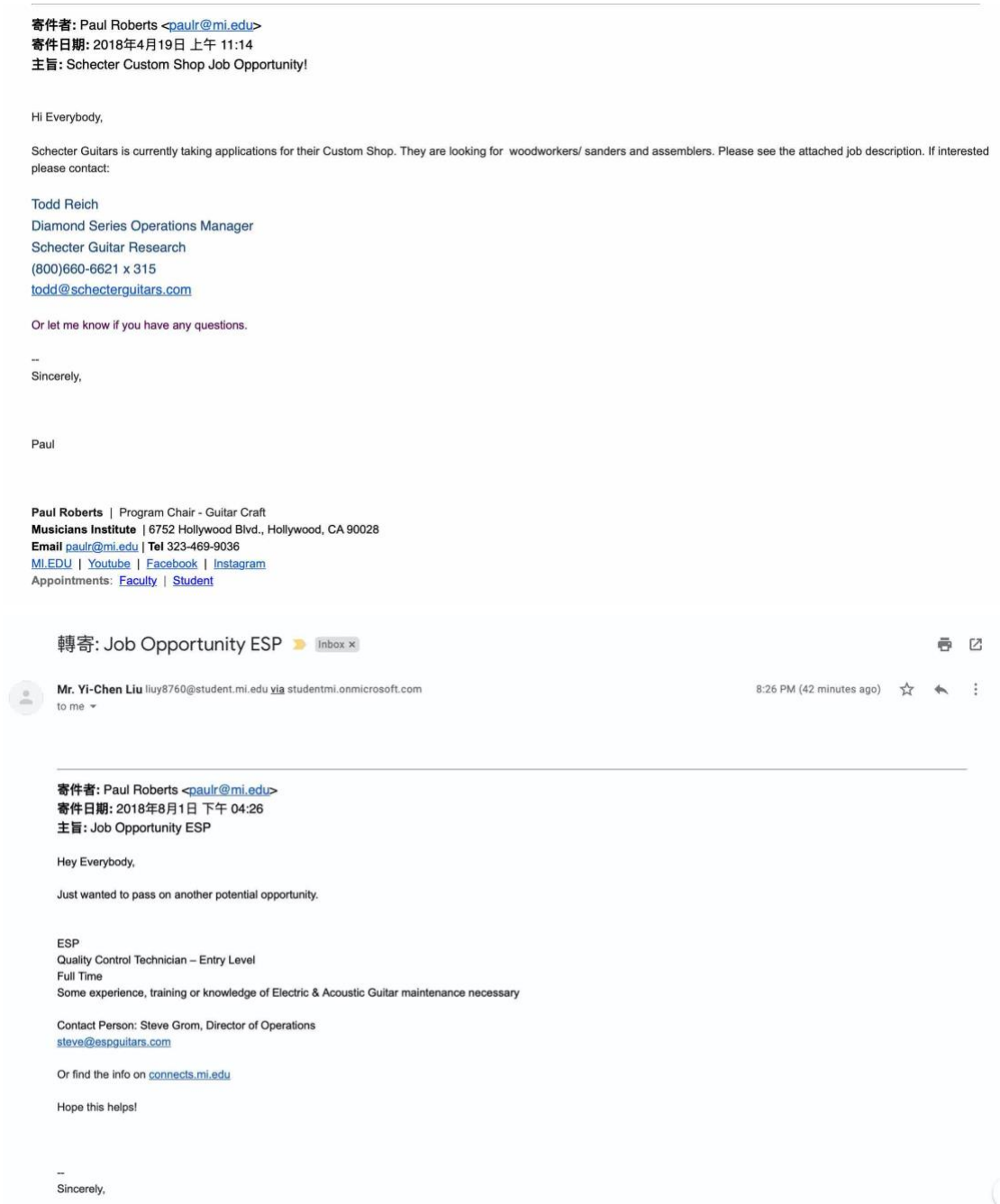
Kathy Wingert's rejection reflects a boutique shop owner's difficulty in hiring an inexperienced guitar builder. In a boutique shop, its apprentices should know everything for making guitars. It's almost impossible for a luthier to train his apprentice from scratch. Furthermore, very few luthiers dare entrust a fledgling rookie with the task of the woodworks on a guitar worth 10,000 dollars, let alone asking them to operate dangerous power machines in the shop, such as band saw, belt sander, planer, and handy router.

Apprenticeship in a Boutique Shop, and Job-Hopping amid the Networks

After being out of the luthiery school, this young artisan is supposed to have learned fundamental guitar-making knowledge because almost all luthiery schools will ask students to make at least one guitar as their final project for graduation. Now, it's time to find a job on the market.

HT3-3's observation clearly shows a connection between boutique shop owners and luthiery school: boutique shop needs adequate labor force trained by luthiery school; luthiery school wants to recommend their graduates to the labor market. Therefore, it's mutually beneficial to three parties: student, school, and luthier. The following screenshots (Figure 12) are the job opportunity emails sent from guitar makers to MI Guitar Craft Academy's director. In these emails, we may see how this

connection works.



寄件者: Paul Roberts <paulr@mi.edu>
寄件日期: 2018年4月19日 上午 11:14
主旨: Schecter Custom Shop Job Opportunity!

Hi Everybody,

Schecter Guitars is currently taking applications for their Custom Shop. They are looking for woodworkers/ sanders and assemblers. Please see the attached job description. If interested please contact:

Todd Reich
Diamond Series Operations Manager
Schecter Guitar Research
(800)660-6621 x 315
todd@schecterguitars.com

Or let me know if you have any questions.

--
Sincerely,

Paul

Paul Roberts | Program Chair - Guitar Craft
Musicians Institute | 6752 Hollywood Blvd., Hollywood, CA 90028
Email paulr@mi.edu | **Tel** 323-469-9036
MI.EDU | Youtube | Facebook | Instagram
Appointments: Faculty | Student

轉寄: Job Opportunity ESP Inbox ×

Mr. Yi-Chen Liu liuy8760@student.mi.edu via studentmi.onmicrosoft.com 8:26 PM (42 minutes ago)
to me

寄件者: Paul Roberts <paulr@mi.edu>
寄件日期: 2018年8月1日 下午 04:26
主旨: Job Opportunity ESP

Hey Everybody,

Just wanted to pass on another potential opportunity.

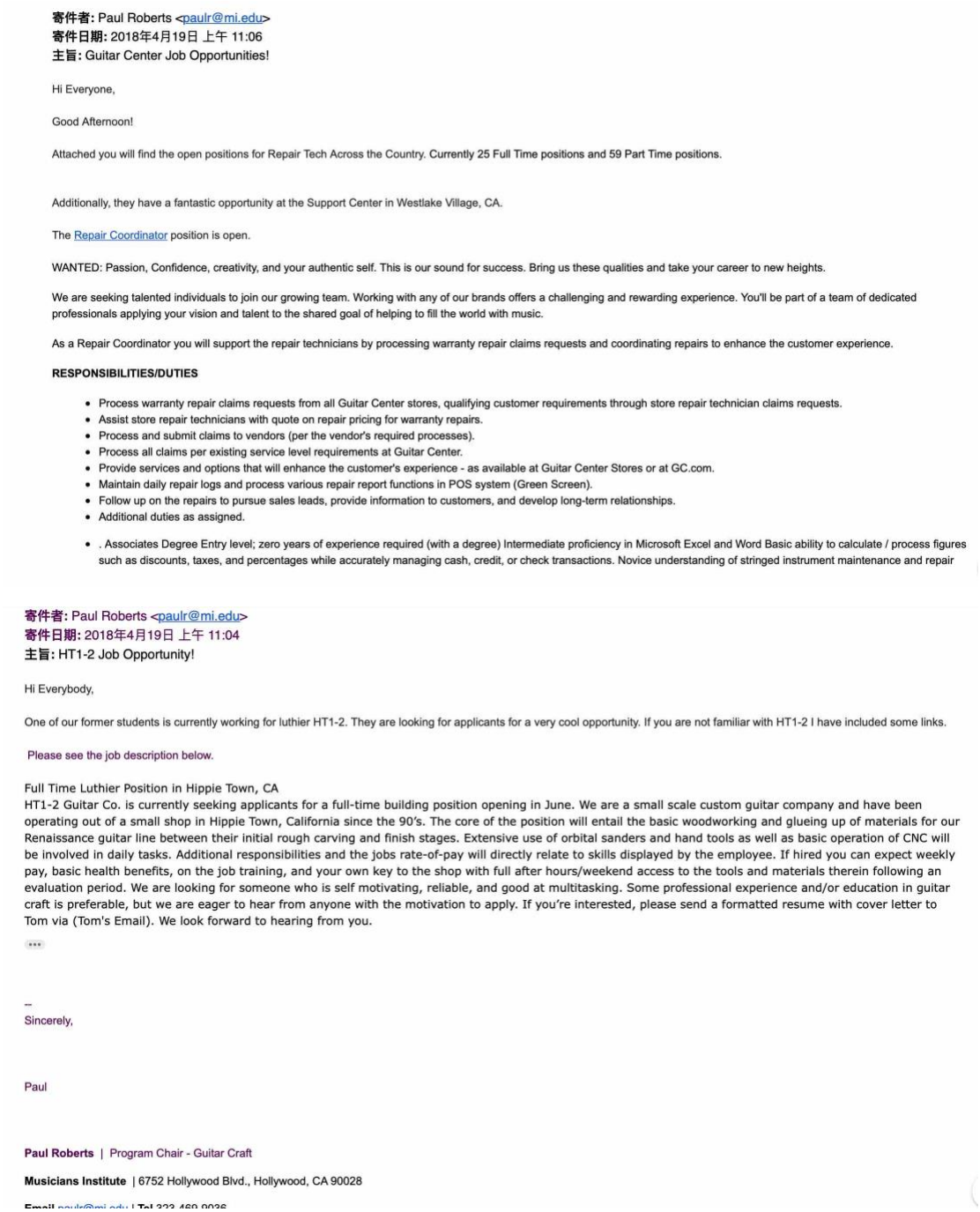
ESP
Quality Control Technician – Entry Level
Full Time
Some experience, training or knowledge of Electric & Acoustic Guitar maintenance necessary

Contact Person: Steve Grom, Director of Operations
steve@espguitars.com

Or find the info on connects.mi.edu

Hope this helps!

--
Sincerely,



寄件者: Paul Roberts <paulr@mi.edu>
寄件日期: 2018年4月19日 上午 11:06
主旨: Guitar Center Job Opportunities!

Hi Everyone,

Good Afternoon!

Attached you will find the open positions for Repair Tech Across the Country. **Currently 25 Full Time positions and 59 Part Time positions.**

Additionally, they have a fantastic opportunity at the Support Center in Westlake Village, CA.

The Repair Coordinator position is open.

WANTED: Passion, Confidence, creativity, and your authentic self. This is our sound for success. Bring us these qualities and take your career to new heights.

We are seeking talented individuals to join our growing team. Working with any of our brands offers a challenging and rewarding experience. You'll be part of a team of dedicated professionals applying your vision and talent to the shared goal of helping to fill the world with music.

As a Repair Coordinator you will support the repair technicians by processing warranty repair claims requests and coordinating repairs to enhance the customer experience.

RESPONSIBILITIES/DUTIES

- Process warranty repair claims requests from all Guitar Center stores, qualifying customer requirements through store repair technician claims requests.
- Assist store repair technicians with quote on repair pricing for warranty repairs.
- Process and submit claims to vendors (per the vendor's required processes).
- Process all claims per existing service level requirements at Guitar Center.
- Provide services and options that will enhance the customer's experience - as available at Guitar Center Stores or at GC.com.
- Maintain daily repair logs and process various repair report functions in POS system (Green Screen).
- Follow up on the repairs to pursue sales leads, provide information to customers, and develop long-term relationships.
- Additional duties as assigned.
- . Associates Degree Entry level; zero years of experience required (with a degree) Intermediate proficiency in Microsoft Excel and Word Basic ability to calculate / process figures such as discounts, taxes, and percentages while accurately managing cash, credit, or check transactions. Novice understanding of stringed instrument maintenance and repair

寄件者: Paul Roberts <paulr@mi.edu>
寄件日期: 2018年4月19日 上午 11:04
主旨: HT1-2 Job Opportunity!

Hi Everybody,

One of our former students is currently working for luthier HT1-2. They are looking for applicants for a very cool opportunity. If you are not familiar with HT1-2 I have included some links.

Please see the job description below.

Full Time Luthier Position in Hippie Town, CA
HT1-2 Guitar Co. is currently seeking applicants for a full-time building position opening in June. We are a small scale custom guitar company and have been operating out of a small shop in Hippie Town, California since the 90's. The core of the position will entail the basic woodworking and glueing up of materials for our Renaissance guitar line between their initial rough carving and finish stages. Extensive use of orbital sanders and hand tools as well as basic operation of CNC will be involved in daily tasks. Additional responsibilities and the jobs rate-of-pay will directly relate to skills displayed by the employee. If hired you can expect weekly pay, basic health benefits, on the job training, and your own key to the shop with full after hours/weekend access to the tools and materials therein following an evaluation period. We are looking for someone who is self motivating, reliable, and good at multitasking. Some professional experience and/or education in guitar craft is preferable, but we are eager to hear from anyone with the motivation to apply. If you're interested, please send a formatted resume with cover letter to Tom via (Tom's Email). We look forward to hearing from you.

•••

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Sincerely,

Paul

Paul Roberts | Program Chair - Guitar Craft

Musicians Institute | 6752 Hollywood Blvd., Hollywood, CA 90028

Email paulr@mi.edu | **Tel** 323.469.9036

Figure 12 Job Opportunity Email to Students from MI's Guitar Craft Program's Director

We can figure out that various guitar makers, including mass production factories[45] (ESP, Schecter), Guitar Stores (Guitar Center), are willing to hire graduates from luthiery school from these four emails. Very interesting, the fourth email came from HT1-2.

In the second stage, graduates are expected to do the entry-level job in a shop, such as a sander, despite having a certificate from luthiery school. As a sander, the job is very boring: to sand the surface of the guitar body by using sandpapers with different grit sizes. After several months later, maybe they will be transferred to another department if the supervisor believes that they are adequate to do more difficult jobs.

In this stage, young artisans are supposed to experience many cultural shocks that resulted from the gap between what they learned in school and what they are required to do on a shop floor. They will be asked to use different power machines, wire with different diagrams, and set up guitars with different action charts. However, the more shocks a young artisan receives during this period, the more skills he can learn from the shocks.

Job-hopping is another common feature frequently happening during this period, especially if this artisan is hired in a community many luthiers collected there, such as in Hippie Town, because young artisans will be more likely to receive hiring information. In HT3-3 and HT3-4's interviews, we may witness how the existing

[45] Job opportunity email from ESP and Schecter are very tricky. Both these two brands, like Fender, have both mass production assembly line and custom shop. In other words, they will hire either unexperienced graduate for mass production line or experienced luthier for boutique-oriented custom shop, or both. According to the description of job requirement, woodworker/sander/assembler, and quality control technician, it seems that both of them want to hire people to participate in mass production line, rather than their custom shop.

industry networks may result in the fast turnover of personnel within the networks. A variety of reasons could lead to job-hoppling: chasing a higher salary, learning a new skill, working with a favorite luthier. “How to maintain the turnover for business benefit” could be contradictory to “how to work with different luthier for personal purpose” in the industry networking in Hippie Town.

Pieceworker

A young artisan will try his best to take the opportunity to run a side business in the work-off time when reaching the third stage of the ladder. In this stage, the skill formation of this artisan should be mature enough to receive some guitar setup or maintenance cases. In addition, he should have some hand tools for doing these guitar maintenance works. If lucky, he will have a chance to design and make a custom-ordered guitar.

Receiving maintenance or repair cases is the best way to test a guitar luthier’s craftsmanship. In this stage, after learning skills from several luthiers, this young artisan should be able to figure out what problem a guitar has and how to solve this problem. For example, one of the most annoying problems on a guitar is the buzzing noise when you pluck or pick strings. For an inexperienced artisan, it’s always annoying to eliminate the buzzing noise because there are dozens of reasons to result in buzzing[46].

[46] Any one of following reasons could result in buzzing: losing hardware, improper height of nut, the break nut slot, nut slot too low, nut slot too wide, neck twist, truss rod too tight/loose, uneven frets, loose fret, frets too flat, bridge height too low, a burr of saddle, string fault, insufficient angle behind the saddle. A luthier without experience and affluent fretboard knowledge is unable to solve the problem of buzzing noise.

In addition, how do you judge whether or not this neck is healthy? Is the fretboard twisting? Why does the pickup not work? How to repair a crack on the top of an acoustic guitar? How to replace a broken truss rod? All knowledge and experience you earn in the first two stages should help you quickly troubleshoot the problems. Moreover, you are expected to solve problems with a cheaper method and shorter working hours. We may even conclude that the establishment of your reputation is based on your side business's quality at this stage. If your customers appreciate your maintenance and repair work at this stage, you will have a better chance to continue to climb up on this ladder.

In this stage, a young luthier is supposed to create social relationships with other luthiers through sharing customers or market information. The circulation of customer's information between HT3-3 and HT3-4 is a good example. On the one hand, introducing customers to another luthier is helpful to create a good relationship within your cohorts. One day, other luthiers will recommend their customers to you in the future. On the other hand, you will not damage your reputation due to screwing a customer's guitar if you're not familiar with the problem of that case. The second reason matters in an internet world. An instructor in Guitar Craft Academy of Musicians Institute always warns his students not to accept any case unfamiliar to you. "Luthiers' community is very small," he said, "if you screw up a case, everyone in this world will know this news tomorrow."

Creating your workshop and having your means of production, such as files, chisels, clamps, rulers, and other power machines, are inevitable investments when

climbing up on the ladder. Unlike mass-production factory's workers only making guitars by using tools offered by the factory, as an artisan desiring to create your shop, you're supposed to begin spending all, or at least, most of your savings to invest the means of production in this period. And interestingly, the means of production you have may be better or more advanced than your master. In the real world, it's not rare for an apprentice to have better or more advanced tools than his master, especially if this apprentice is an independent contractor of his master:

YC: In HT1-3's shop, have you always worked overtime? More than 40 hours?

HT3-3: No, but what I can do is…here I do like traditional Fresh polish. I developed a style of finishing. That will make spirit polish, which like a different mixture. If I bring them home, I can spray them, and then I bring them back. So for the performance guitars, I'll bring like three home at a time, then I charge him by the guitars (I completed), these guitars. So I give him discount, so he…we both make out. I make more money taking home. He gets guitars cheaper.

YC: I am still a little bit confused. If you take the guitar home and work home, can you charge him more?

HT3-3: It sounds complicated. If I take it home, I will charge…there is a certain process, I will charge 65 dollars.

YC: One guitar?

HT3-3: One guitar. So if I take home three guitars…

YC: 195?

HT3-3: I can make 195 dollars.

YC: But if you work here?

HT3-3: If I work here I can't…if I work in my house, I can spray, I have the spray…I can do these things in my house, but here, I can't do this.

YC: Yeah, here has no room for spray.

HT3-3: No spray.

YC: So you create a spray room in your house?

HT3-3: Yeah.

YC: So actually it's HT1-3 uses your resources…oh, that's why you charge him more…

HT3-3: Yeah. But it's still cheaper than I do by hand. So he wins, and I win.

YC: So it's a win-win.

HT3-3: Yeah, it's win-win. If I take a day off like I can't make it for some reason, I'll take three guitars home, and I finish these guitars and make up for the days I love.

In this passage, we can learn that HT3-3's more advanced spray gun and spray room in his housing can help him earn more than working in HT1-3's workshop through the outsourcing contract. On the one hand, HT3-3 was required that few French polish works, a very traditional hand-finished work, should be done in HT1-3's workshop; on the other hand, HT3-3 takes other guitars home and finishes them by using his spray gun in his spray room. With an advanced pray gun in his spray room, HT3-3 can more efficiently complete the finish work in his housing than in HT1-3's shop, so he can reduce the unit price of one guitar's finish work but still earns more.

In this story, we can also learn how HT3-3 can command the skill to do business with his master in this outsourcing contract: how to reach a win-win in a specific collaboration. In addition, the relationship between HT3-3 and HT1-3 is not only a single apprenticeship but also a partnership based upon business. As a piece worker, this stage aims to learn how to do business rather than improving skills. Therefore, I have to cite HT1-2's advice to young apprentices repeatedly. In his advice, it helps us make sense of the importance of entrepreneurship for surviving in the market:

The more instruments you sell, up to the point, the harder is to sell to the next

ones. Pretty soon…are you selling direct? Are you selling to stores? Or are you selling to consignment? Can you afford to give discount of the guitar stores? If you can't, you not can be…in the level of business that I want to be. You know.

Independent Luthier

Congratulation! Now you own your independent shop. It also means that transferring your craftsmanship into a commodity, and selling it on the market directly will be the primary income source. The sales record will reflect how the market and consumers judge the value of your craftsmanship and entrepreneurship. Now you're not only a craftsman but also a businessman.

Therefore, many troubles unrelated to guitar-making need you to sort them out. How do you respond to overseas orders? Should you spend thousands of dollars participating in the NAMM shop? Should you hire people to work with you? If so, do you want to hire people directly or outsource your works to others? Do you wish to use CNC and Laser printers? Again, if you're going to use CNC, will you order a machine from Plek, the worldwide famous CNC builder for guitar makers? Or are you willing to outsource works to an electronic factory owner in your city?

How to decide the most profitable wage system is always a good question to a shop owner if he begins to hire young artisans. He may apply a time-wage system, piece-wage system, or both in his shop and even apply both on one person. For example, HT3-3 spent 40 hours a week to do finish work in HT1-3's shop, but he also received outsourcing cases from HT1-3 and finished these guitars in his housing by using his spray guns during the work-off time.

Additionally, you're supposed to begin your global journey, despite your location in Hippie Town, a remote small city in Bay Area, California. In my research, all HT1-1. HT1-2 and HT1-3 have global networks for selling their guitars internationally. Only on the top of the ladder you will have a chance to see the global scene.

Finally, we can use Figure 13 to conclude the four stages of this ladder and the primary focuses of each sage. In the next section, we will see the Japanese luthiers' experience.

Stages	Main focuses
Independent luthier	Creating independent shop Hiring people Involved in global networks
Pieceworker	Having job-hopping experience Serving for one or more luthiers for salary Taking repair/maintenance cases as a side business Creating networks with peer artisans
Apprenticeship in a shop	Involved in local industrial networks Learning and working from the lowest level Learning different experience from school Beginning to job-hopping
Student in school	Learning craft skills and knowledge Learning by paying tuition fees Vocation-oriented luthiery education

Figure 13 The Ladder towards Luthier in the Guitar-Making Industrial Networks in Hippie Town

Chapter Six The Variants of the Ladder towards Luthiers in Japan: Hamamatsu Model and Nagano Model

The history of the guitar-making industry in Japan can be traced back to the first half of the twentieth century, despite its famous reputation as copyist guitars in the 1970s. In addition, we have to pay attention to two places, Hamamatsu and Nagano, which are two important guitar-making centers in Japan.

Hamamatsu Model: From Lawsuit Guitars to Original Design under the Industrial Networks created by Yamaha and Kawai

Hamamatsu is an industrial city in Shizuoka Prefecture, which is famous for its instrumental industry. Several transnational corporations of instrumental manufacturing were established in Hamamatsu, such as Yamaha, Roland, Kawai. Just like the question of why luthiers collected in Hippie Town, California, again, we should ask why Hamamatsu.

Before Torakusu Yamaha, the founder of Yamaha, began repairing organs for local elementary schools in Hamamatsu in 1887, Hamamatsu had been an important industrial city full of woodworking, casting painting industries, which are also the required skills for making instruments. Hence, these pre-existing industries and their artisans offered sufficient labor force and know-how to establish Yamaha in the late 19th century. With the local carpenter's assistance and his previous repairing experience, Torakusu Yamaha built his first organ after he successfully repaired the first organ. He

truly believed that organs should be made in Japan because music education in elementary schools couldn't be promoted without the popularity of cheaper organs. After making his first organ, in order to know the quality of this organ, Torakusu Yamaha brought this organ to Tokyo and visited Shuji Isawa, the principal of Tokyo Music School who had studied music education in the US in the 1870s, and hoped that Shuji Isawa could give him suggestions.

However, the quality of this first organ built by Torakusu Yamaha was inferior due to the lack of prior knowledge of music. In order to make organs with the correct tone and pitch, Yorakusu Yamaha spent several months studying music at Tokyo Music School then back to Hamamatsu to build his second organ. Finally, Shuji Isawa recognized the quality of this second organ. Then, Torakusu Yamaha received his first order from Takayoshi Sekiguchi, the governor of Shizuoka Prefecture, who ordered five organs. Soon Torakusu Yamaha received organ orders from various local governments who actively promoted music education in elementary schools.

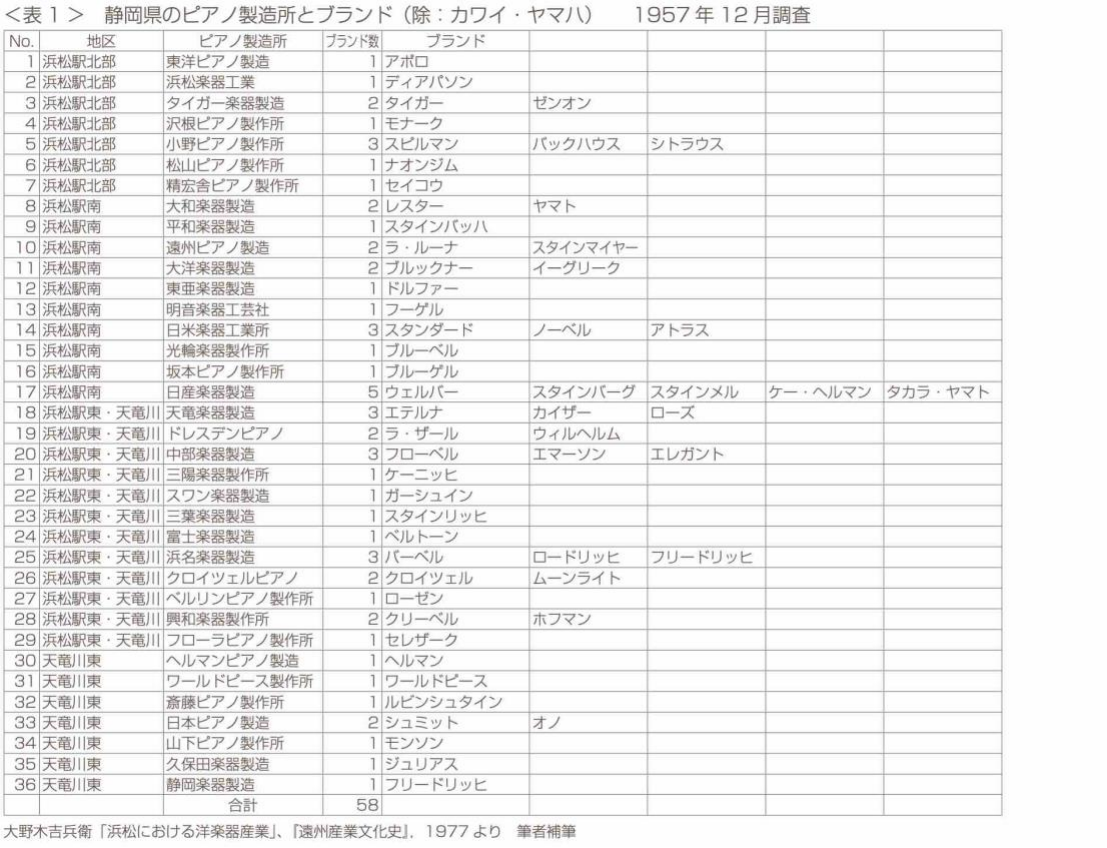
The participation of Koichi Kawai in 1897, in the same year Torakusu Yamaha renamed his company as Nippon Instrumental Gakki Company (and later as Yamaha Corporation), strengthened Nippon Gakki's research ability to develop piano-making skills. Koichi Kawai came from a local carpenter's family and was skillful in woodworking. Despite an 11-year-old elementary school kid, Koichi Kawai was introduced to Torakusu Yamaha by his teacher, who very clearly understood Koichi Kawai's talent because Koichi Kawai could make a small carriage model after glancing at a real carriage running outside. Koichi Kawai spent three years learning piano-

making skills by himself and successfully made the first piano in 1890 when he was only 14 years old.

After working for Nippon Gakki 26 years later, a labor strike resulted in Koichi Kawai's decision to quit Yamaha and create his own company. On April 21, 1926, employees, organized by Hamamatsu General Union, directed by the Council of Labor unions of Japan, submitted a petition with 12 articles to the company. However, this petition, including the improvement of sanitation and the increase of minimum payment, was not accepted by Chiyomaru Amano, the new president of Nippon Gakki. The negotiation breakdown led to the direct strike on April 26. Workers quickly established their organization to mobilize the strike, such as offering labor education, publishing worker's daily news, which was supported by the Japan Labor-farmer Party, the Japan Farmer Union, and workers and Citizens in Hamamatsu. In contrast, the strike participants and their related mobilization activities were kept under surveillance by polices and right-wing groups. On July 16, a powerful explosive thrown into the company executive's housing resulted in swift action by polices to arrest strikers. On August 8, this 105-day strike was over. Three hundred fifty workers were laid off with arbitration of 30,000 yen in a dismissal allowance.

After this strike, Koichi Kawai, as a director of one department at Nippon Gakki, believed that he should take responsibility for the strike, so he decided to quit Nippon Gakki in 1927. In the same year, he found the Kawai Musical Instrument Research Laboratory. Two years later, in 1929, this laboratory was renamed as Kawai Gakki Manufacturing. Because of his excellent reputation at Nippon Gakki, this new

instrument manufacturing company was quickly developed as Nippon Gakki's primary competitor in the piano-making industry. According to Kichibei Onogi's investigation in 1957, there were at least 36 piano-making companies in Hamamatsu (Figure 14).



＜表１＞　静岡県のピアノ製造所とブランド（除：カワイ・ヤマハ）　1957年12月調査

No.	地区	ピアノ製造所	ブランド数	ブランド				
1	浜松駅北部	東洋ピアノ製造	1	アポロ				
2	浜松駅北部	浜松楽器工業	1	ディアパソン				
3	浜松駅北部	タイガー楽器製造	2	タイガー	ゼンオン			
4	浜松駅北部	沢根ピアノ製作所	1	モナーク				
5	浜松駅北部	小野ピアノ製作所	3	スピルマン	バックハウス	シトラウス		
6	浜松駅北部	松山ピアノ製作所	1	ナオンジム				
7	浜松駅北部	精宏舎ピアノ製作所	1	セイコウ				
8	浜松駅南	大和楽器製造	2	レスター	ヤマト			
9	浜松駅南	平和楽器製造	1	スタインバッハ				
10	浜松駅南	遠州ピアノ製造	2	ラ・ルーナ	スタインマイヤー			
11	浜松駅南	大洋楽器製造	2	ブルックナー	イーグリーク			
12	浜松駅南	東亜楽器製造	1	ドルファー				
13	浜松駅南	明音楽器工芸社	1	フーゲル				
14	浜松駅南	日米楽器工業所	3	スタンダード	ノーベル	アトラス		
15	浜松駅南	光輪楽器製作所	1	ブルーベル				
16	浜松駅南	坂本ピアノ製作所	1	ブルーゲル				
17	浜松駅南	日産楽器製造	5	ウェルバー	スタインバーグ	スタインメル	ケー・ヘルマン	タカラ・ヤマト
18	浜松駅東・天竜川	天竜楽器製造	3	エテルナ	カイザー	ローズ		
19	浜松駅東・天竜川	ドレスデンピアノ	2	ラ・ザール	ウィルヘルム			
20	浜松駅東・天竜川	中部楽器製造	3	フローベル	エマーソン	エレガント		
21	浜松駅東・天竜川	三陽楽器製作所	1	ケーニッヒ				
22	浜松駅東・天竜川	スワン楽器製造	1	ガーシュイン				
23	浜松駅東・天竜川	三葉楽器製造	1	スタインリッヒ				
24	浜松駅東・天竜川	富士楽器製造	1	ベルトーン				
25	浜松駅東・天竜川	浜名楽器製造	3	バーベル	ロードリッヒ	フリードリッヒ		
26	浜松駅東・天竜川	クロイツェルピアノ	2	クロイツェル	ムーンライト			
27	浜松駅東・天竜川	ベルリンピアノ製作所	1	ローゼン				
28	浜松駅東・天竜川	興和楽器製作所	2	クリーベル	ホフマン			
29	浜松駅東・天竜川	フローラピアノ製作所	1	セレザーク				
30	天竜川東	ヘルマンピアノ製造	1	ヘルマン				
31	天竜川東	ワールドピース製作所	1	ワールドピース				
32	天竜川東	斎藤ピアノ製作所	1	ルビンシュタイン				
33	天竜川東	日本ピアノ製造	2	シュミット	オノ			
34	天竜川東	山下ピアノ製作所	1	モンソン				
35	天竜川東	久保田楽器製造	1	ジュリアス				
36	天竜川東	静岡楽器製造	1	フリードリッヒ				
		合計	58					

大野木吉兵衛「浜松における洋楽器産業」、『遠州産業文化史』、1977より　筆者補筆

Figure 14 Piano Manufacturers in Hamamatsu in 1957

But most of them failed to survive in the market. In 2014, according to Shinji Tomita's investigation, there were only four piano makers in Hamamatsu (Figure 15).

＜表２＞　浜松地域のピアノ製造業者（2013年現在、ヤマハ、カワイを除く）

製造業者名	所在地	ブランド	現状
東洋ピアノ製造	磐田市高木（本社工場）	アポロなど	海外生産　本社工場では仕上・調整を行う
エスピー楽器製作所	磐田市豊田	シュベスター	注文生産のみ　通常は修理・再生中心
シュパイツァ技研	磐田市大原	シュパイツァ	注文生産のみ　通常は修理・再生中心
クロイツェルピアノ	浜松市中区城北	クロイツェル	注文生産のみ　通常は修理・再生中心

Figure 15 Piano Manufacturers in Hamamatsu in 2014.

The stories of Yamaha, Kawai, and the industrial development in Hamamatsu illustrate that industrialization may lead to the birth of small firms in the same place. Like the guitar-making industry in Hippie Town, the growth in Hamamatsu's instrument-making industry was based upon the rise of one or two big firms at the beginning. However, employees may build a new company to continue their career in the same location after quitting jobs. Eventually, all builders will collectively create the social networks of the production.

Piano-making networks could be an example to describe the background and character of the instrument industry in Hamamatsu. First, the previous industries may offer skillful artisans for the development of the instrument industry. Second, a variety of builders, regardless of their different firm sizes, collectively participate in the production networks. However, how do we explain the relationship between piano-making and guitar-making? In addition, all these above characters and historical background are only related to the local factors. How do we explain the rise of the guitar-making industry in Hamamatsu with globalization? By reviewing the HG Instruments Company's story, we may learn about different guitar makers' experiences regarding globalization in Hamamatsu.

HG Instruments Company: From Mass Production to Craft-Made, from Lawsuit Guitars to Original Innovation

June 4, 2019, I walked into a 4-floor white building close to Hamamatsu's seashore and interviewed the president of HG Instruments Company. HG Instruments

Company is a family-owned firm founded by the president's grandfather in 1947:

> *President: When my grandfather created HG Instruments Company, he was around 50 years old. In the beginning, there was no president of this company because this company was a co-op (合作会社), not a stock company (Kabushiki-Kaisha). But one year later, this co-op was restructured as a stock company.*

In the email, the president also told me the history of both HG and the whole instrument industry in Hamamatsu:

> *Later, engineers left Yamaha, and they started Kawai in Hamamatsu. Many people started their business to co-operate Yamaha for making the parts, painting the parts, cutting the woods, and so on. After World War II, many people started their business making harmonica. At that time, our family business was a music shop in Hamamatsu, and we were also an agent of Kawai around Hamamatsu. Some engineers from Kawai left the company, and they asked my grandfather to start a business making harmonicas together. So my family invested money and started a factory making harmonicas as a name of HG. At that time, there were many harmonica factories in Hamamatsu. So Hamamatsu was a good location to start musical instrument factories.*

The first instrument built by HG was not guitar. Like the early development of Yamaha, focusing on organ making is related to the need for elementary school education in music class. The first instrument made by HG was melodica, a musical keyboard making sounds by blowing air into the instrument and then pressing the keyboard, which was an important instrument used by Japanese elementary schools for

the music lesson. In 1961, HG released Pianica (ピアニカ), a modified melodica, which became the first successful instrument built by HG and famous in the market. It is worth noting that the sale of Pianica was authorized to Yamaha. The cooperation between HG and Yamaha can be another example to prove the complex networks among instrument makers in Hamamatsu.

HG began to make guitars several years later: classical guitars in 1967, electric guitars in 1968, and acoustic guitars in 1970. In 1971, in order to sell HG's products in the US market, HG created a joint venture in Texas. In 1972, HG became a joint venture of Martin Guitars to make guitar parts for Martin. During this period, HG quickly learned a variety of knowledge of guitar-making, which were helpful in make copy guitars in the future.

Between 1977 and 1980, HG began to build "lawsuit guitars" by copying 58' Les Paul, one of the most famous and popular Gibson's models. In the beginning, this replica of Gibson Les Paul was named "Les Paul Reborn," later changed to "Reborn Old," and then "Love Rock." Despite the sarcasm of "lawsuit guitar," the quality of HG's Love Rock series is highly evaluated by American players and collectors. For example, a 1979 HG's Les Paul Reborn can be sold 2,500 USD on Reverb.com. HG also made replicas of Fender's models. In the early 80s, HG released the Silver Star Series (Figure 16), the replica of Fender Stratocaster.



Figure 16 HG's Silver Star

The making of lawsuit guitars without authorization from Fender resulted in civil litigation in 1984. Despite the out-of-court settlement, HG's management remained difficult because HG couldn't use its advantages to build lawsuit guitars anymore. First, according to the settlement, HG had to change the design of the headstock, which means that HG couldn't copy the original design of Fender Stratocaster. Second, this settlement also results in the restructuring of HG from mass production to small production. Before the civil litigation, HG was a mass production firm hiring more than 400 workers. After the restructuring, its employees reduced to only around 20 people now. The president talked about the gender difference between before the restructuring the company and after:

> *(After hiring graduates from ESP guitar craft school) The demand for quality levels has been strengthened. So we need skillful workers. So the workers who graduated from guitar engineering school help our business. Most of the workers at the assembly line were women at that time. Now every worker is male, and they need to take charge of many kinds of processes. Also, they understand what good guitars and the principle of the guitar is.*

In order to face the difficulty of restructuring, HG also closed its original factory and moved its production line to its original employee's dormitory where I visited. But one question remains unanswered: how could HG get through the difficulties due to the restructuring? Layoff and closing the production line can only explain the reduction of production costs. But, how can HG increase its income? The answer is surprisingly simple: they receive outsourcing cases from other guitar companies.

We appreciate Aria Guitars. They offered us subcontracting work to make their Aria Pro II. It's a big help.

Depending on the subcontracting orders is a very big difference between American guitar-making firms and Japanese ones. The former is inclined to create their firm-owned brands or models; the latter doesn't mind receiving outsourcing orders. In 1995, HG even accepted the subcontracting works from Fender Japan to make guitars. Interestingly, in order to identify the difference between different outsourcing manufacturers, the production inscriptions on the back of the neck are also different. For example, guitars made by Fujigen between 1982 and 1995 were inscribed the words "made in Japan" on the headstock's back; but guitars made by HG are "crafted in Japan." Like the president's conclusion of HG's history, we are constantly striving to survive. Making guitars for other companies is one strategy to survive in the Japanese market: innovation. HG has two innovations on its products: SEB construction and Talbo guitar body.

SEB construction, Sound Effect Body construction, is a new design to build a guitar body by using three pieces of wood. By placing a cross-grained piece of wood at the center of the guitar body, the transmission of the string vibration on a SEB construction body (Figure 17) will travel four times faster than a regular body. This design of the body can effectively improve the sustain and note clarity.

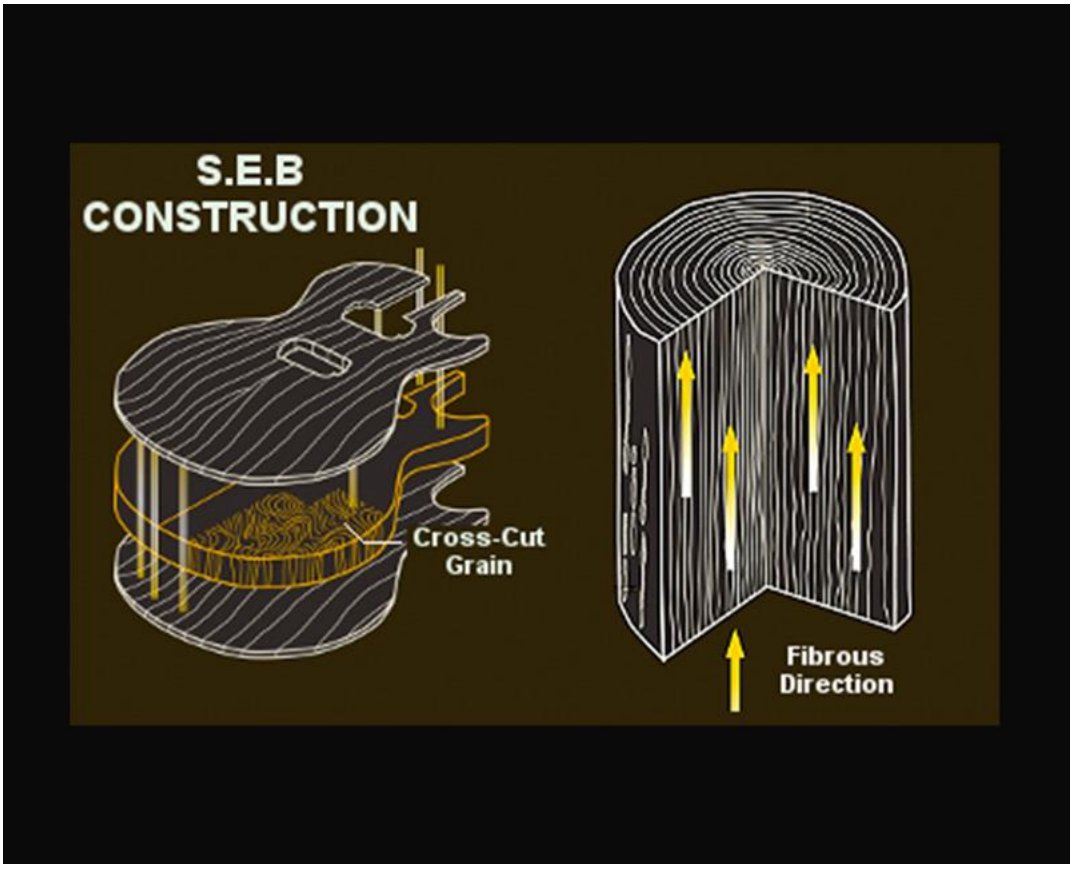


Figure 17 SEB Construction invented by HG Instruments Company

The second innovation is the Talbo body (Figure 18), which could be the best example to explain the complicated production networks of the guitar industry in Hamamatsu. Different from a regular wood solid body, the Talbo body is made with aluminum. This innovative design and material choice make Talbo sound very modern and different from Fender and Gibson's "vintages." In addition, we have to notice the outsourcing connections between HG and Yamaha in making Talbo guitars. Since the adoption of aluminum alloy AC-4B, a material used in a racing car engine, the president of HG told me that "actually, we outsource the making of Talbo bodies to Yamaha."

When I asked the owner how Yamaha guitars know the metal works, “No, we outsource this work to Yamaha Motor Company,” the president said.



Figure 18 HG’s Talbo Guitar

*HG Instruments Company’s Business Network*s: Local Outsourcing and Global Dealers

Similar to Piore and Sabel’s observation of the craft industry that might adopt

outsourcing and subcontracting for flexibility (Piore and Sabel 1984), HG's craft-made production also depends upon the outsourcing system. The outsourcing of Talbo to Yamaha Motor is just one example. In fact, HG also outsources the painting and finishing works to other professional painting shops. "We only paint those hi-end guitars with a high price. Guitars sold at a lower price will be sent to outsourcing painting shops," the president said. When I further asked the name of his outsourcing painting shop, surprisingly, the president told me that he forgot its name. "I don't remember its name because we have four outsourcing painting shops." But the president is pretty sure that their painting shops are in Matsumoto, Nagano Prefecture. "Actually, both Fujigen and us share the same outsourcing factory in painting," the president said, "by the way, we also have another outsourcing partner in Qingdao, China."

Outsourcing is just one part of the Japanese production networks in the guitar-making industry. Various actors play their roles in the network, including production factory, distributor, frim owner, artisan, graduate from guitar craft production, outsourcing partner, and international dealer. All of them work together to add value to Japan-made guitars.

HT1-1's Taiwanese dealer, Kevin, is also HG's dealer. Kevin told me a story about how he introduced a Taiwanese guitar player to order a guitar from HG:

YC: So, Did A-Tsing ask you to contact HG for making his custom-ordered guitar?

Kevin: Yeah, A-Tsing said he likes something gorgeous. I asked him his ideal model. He told me that he wants to have a guitar used by Hisashi (lead

guitarist of GLAY, a Japanese rock band). Hisashi's guitar is Talbo made by HG, So I brought A-Tsing to visit HG and have a meeting with their artisans. So he ordered a guitar from HG and named it "Water Heart." If you google it, maybe you still can find the photo in which A-Tsing is playing the "Water Heart" guitar.

YC: So, is it designed by A-Tsing.

Kevin: No, it's designed by HG, but A-Tsing modified the specification. For example, he wants to decorate the inlays by using LED lights. And it has a very complicated electronic diagram, a five-way switch of pickups (Figure 19).

This story displays the complicated structure of HG's production networks, which should be explained in a global connection between player, builder, and dealer, rather than only the domestic outsourcing relationships. Furthermore, we can see that a dealer plays a significant role in creating a bridge between foreign guitarists and guitar makers and promoting the products of his customer, HG.

In addition, from HG's perspective, we can see another transformation of HG in terms of its global production chains. Before the restructuring in the 80s, HG's global production chains might be significantly simplified. All production activities were concentrated in its family-owned factory where around 400 workers were hired there, but sale activities were planned and completed by its local dealers or joint ventures. After the restructuring, the layoff of mass production workers directly resulted in the dependency on an outsourcing system in which both local (painting shops in Matsumoto) and global partners (Chinese OEM partner in Qingdao) are included. Additionally, the local dealer plays a more important role in promoting their products. The collaboration between Kevin, A-Chin, and HG creates an international networking

pattern that players, dealers, and guitar makers work together to add value to a guitar.



Figure 19 A-Tsing (right), A Taiwanese Guitar Player, and His HG Custom-Ordered Guitar. We can Clearly see the Talbo metal body and the custom-ordered blue LED lights on the fingerboard and pickguard

This brief review of HG's history can highlight several dimensions of a Japanese guitar manufacturer when it decided to, or was forced to, change its production policy from mass production to craft production. First, making lawsuit guitars is based on the logic of mass production: the cheaper, the better. In addition, we shouldn't forget that the cheap exchange rate of the Japanese Yen before the Plaza Accord in 1985 was another advantage of Japanese copyists. However, when a copyist maker has to give up making copyist products, it means that it doesn't need mass employment and will result

in a mass layoff. Second, this transformation means that the required labor powers will be more likely to depend on graduates from guitar craft school than assemblers. When I asked the president how many people now HG hired. He said that only 20 people and around 10 graduated from ESP Guitar Craft Academy. In addition, we have to keep in mind that, according to the president's opinion, these graduates have a better sense of good guitar's standards than assemblers. Third, the completion of the transformation towards craft-made production depended on the complicated connections among various actors, including dealers, outsourcing partners, endorsers. All these various actors' contributions cannot be understood without putting them in every specific collaboration case. Again, making Talbo guitar is an excellent example to highlight how Yamaha motor factor can help HG Instruments Company create value by making the metal guitar body for HG Instruments. Then, a Taiwanese dealer introduced a local guitar player to buy a custom-order, modified Talbo guitar, and play it in his live gig. In this collaboration, we can see how different actors collectively participate in the global commodity chains of Talbo.

From HG's experience, what is the difference between HG and its American counterparts regarding the transformation from mass production to craft? Fender's transformation should be understood in the context that its production line was moved out to other countries. This migration of production, such as creating Fender Japan and the Fender Mexico, which resulted in creating Fender Custom Shop in California, is based upon an invented tradition of Leo Fender's classical guitar models. In this transformation process, except traditional labor regime based upon scientific

management and Fordism, Fender also adopted a craft-made, custom-ordered, and craft-based rule to enhance the value of its guitars by modifying Leo Fender's classical guitar models.

In contrast, as a copyist guitar manufacturer, HG failed to transform its production strategy by inventing its tradition because of its lack of classical models. According to the president's recalls, we may learn that HG's transformation is based upon these three dimensions: creating new models, restructuring the firm's personnel, and much more dependency on the previous outsourcing system. The invention of Talbo, and SEB construction, offers HG a chance to build its exclusive models. In addition, the mass layoff and the employment of graduates from craft school, the restructuring of its personnel, directly means the transformation based upon the craft-based production. Finally, the outsourcing networks existing for decades still play an important role in helping HG get through the difficulties during its transformation period. We have to emphasize a critical point that the more difficult predicament HG was in, the more assistance it received from this outsourcing system. On the one hand, HG can reduce the cost of production by outsourcing part of its works to its partners; on the other hand, HG also received outsourcing works from other guitar brands.

The last point we have to keep in mind is the specific Asian production networks in the guitar-making industry. A Taiwanese rock guitar player asked HG's dealer to order a guitar modified from a Japanese player's model and made by HG. In this case, various actors, including the player, dealer, guitar maker, play different roles to create the Asian guitar production networks that a guitar made in Japan can be played on the

stage. In addition, we may also observe that the function of the production networks only received very few influences from the US. Neither American musicians nor manufacturers may affect the completion of this cooperation among Asian players, builders, and dealers. When we discuss the experiences of global economies, only very few cases can bypass American firm's significant influence and complete their secondary global networks. In this example, the cooperation among A-Tsing, Kevin, and HG can be seen as one of these sporadic cases and highlights East Asian particularity.

From HG Guitar Company's story, founders leaving Kawai, ownership transformation from cooperative model to private capital, making copying guitars, accused by Fender, mass layoff, and the transformation to craft-made production, we may witness a guitar company's efforts in the changing market. Just like HG's president's humble description of his company in the email: "Actually, we do not think we are a successful company around the world. We always strive to survive in this severe guitar industry." Compared to this humble opinion, when I asked him how he judges Gibson's bankruptcy in 2018. He said: "Gibson will never be defeated. The ownership may be changed, but the brand will always be there. In contrast, what really at risk is a small company like us."

His opinion points out the Japanese guitar builders' difficulty due to the lack of classical brands and models, despite its super adroit craftsmanship.

Matsumoto Model: From Making Lawsuit Guitars to Participating in Fender

Japan

Matsumoto, located in the central Nagano Prefecture, is another guitar-making center in Japan. Unlike Hamamatsu Model based upon the industrial networks evolved by two big transnational corporations, Matsumoto's industry is related to the outsourcing relationship between Hoshino, an instruments company in Nagoya, and Fujigen, a local guitar factory in Matsumoto.

Initially, Hoshino was a family-managed bookstore to sell textbooks for schools and sheet music in the late 19th century. Still, when the Hoshino family founded the instrument department, like Yamaha, it began making foot-powered organs for fulfilling the need for elementary schools, who are also the customers of Hoshino's textbooks and sheet music. In 1929, the new president, Yoshitaro Hoshino, son of Matsujiro Hoshino, decided to import acoustic guitars made by Salvador Ibanez, a Spanish luthier. In 1935, the increasing market demand encouraged Hoshino to make its guitars. Therefore, Hoshino created its first guitar factory in Nagoya and hired around 30 craftsmen to make Ibanez guitars.

In the beginning, Hoshino managed its factory and kept its production line. However, Hoshino understood that outsourcing the manufacturing works to other factories would be cheaper, then Hoshino outsourced contracts to two different factories in 1966. One was Teisco[47]; another one was Fujigen. Both of them were in Nagano Prefecture, but the former was in Toyoshina, the latter in Matsumoto. Hoshino

[47] It's noteworthy that Teisco, despite located in Nagano Prefecture, was a brand under the Kawai, which was a big transnational instrument corporation in Hamamatsu. In this example, we may understand the complicated networks among instrumental manufacturers in Japan.

gradually shifted its focus from manufacturing to distribution.

Now we may move on to introduce the history of Fujigen. Fujigen was founded by Yutaka Mimura in 1960. Initially, it made violins and acoustic guitars and made electric guitars in 1962. But sooner, Yutaka Mimura sold out Fujigen to his high school friend Yuichiro Yokouchi and moved to California. Unlike the development of the instruments industry in Hamamatsu based upon Yamaha and Kawai, the beginning of the industry in Matsumoto is just a small subcontracting factory, Fujigen. In order to survive, it had to receive a variety of outsourcing contracts from other guitar companies, such as Hoshino, Kanda Shokai. In addition, in the first ten years, Fujigen only hired 20 to 40 workers despite receiving many outsourcing contracts. According to Mr. Suzuki's recall, their original workshop was built in Yuichiro Yokouchi's livestock stable.

The growth of Fujigen also encouraged the birth of other guitar companies in Matsumoto, even the whole Nagano Prefecture. One of the largest companies derived from Fujigen is Deviser Guitars. Despite founded in 1984 formally, the history of Deviser can be traced as far back as the mid-1960s. In 1963, Yasuo Momose, only 19 years old, had been hired by a furniture company in Nagano but was persuaded by a senior employee in his company and decided to join Fujigen. However, two years later, in 1965, Yasuo Momose quitted Fujigen and joined Hayashi Mokkousyo (林木工所 Hayashi Wood Workshop), a subcontractor making guitar necks and bodies for Fujigen. As Fujigen stopped ordering guitar necks and bodies from Hayashi, Yasuo Momose was asked by Hayashi's owner if he can make guitars. Therefore, with Yasuo Momose's

assistance, in 1975, Hayashi began making acoustic and electric guitars and became an OEM factory to make Rider Guitars for Kei Yatsuzuka, a guitar wholesaler in Tokyo. In 1977, Tasuo Momose quitted Hayashi and worked with Kei Yatsuzuka to create Deviser Guitars. Deviser is a guitar company owning various brands, including headway guitars (acoustic guitars), Bacchus (electric bass guitars), Momose Custom Craft Guitars (a craft-oriented custom shop led by Tasuo Momose himself), SeventySeven Guitars (hollow-body electric guitars), STR guitars, etc. Now, all these brands run under Limited Company Asuka (有限会社ディバイザー飛鳥) by Satoru Yatsuka, a son of Kei Yatsuzuka. Interestingly, now Kei Yatsuzuka creates another brand, Riverhead Guitars, but set up its factory in the Philippines.

The rise of the growth of Deviser Guitars is one of the guitar makers derived from Fujigen. In Matsumoto and the Nagano Prefecture, there are many guitar shops related to Fujigen, including Dyna Guitars, T's Guitars, Black Cloud guitars, OGI Factory, Red House Guitars, etc. We may conclude that the rise of the small and craft-oriented guitar industry in the Matsumoto Model is related to Fujigen and the outsourcing contracts.

The guitar industry in Matsumoto has gradually integrated into the global production networks between Japan and the United States since the 1980s. In the 80s, Fender Japan, the joint venture of the Fender USA, subcontracted the production to Fujigen. Moreover, Fender Japan subcontracted the production to Fujigen for fulfilling the domestic market in Japan and asked Fujigen to make guitars for overseas markets, including European and American markets[48]. Therefore, in these global production

[48] In 1997, when Fender Japan stopped offering Fujigen the outsourcing contract, it transferred to ask Dyna Inguitars, another OEN factory in Matsumoto, to build OEM guirars for Fender Japan.

connections, everyone plays their role in adding value to a guitar. In this stage, there is no apparent difference between Nike and Fender in terms of their global commodity chains because both of them are devoted to spreading the production out to other countries.

However, again, if we only focus on how subcontractors in Matsumoto participated in the global production networks created by Fender USA, we will overlook small firms and luthiers' experience in the global networks. Therefore, through introducing Suzuki Guitars Company's story, a local and small boutique shop in Matsumoto, we can learn how the Matsumoto model under the global flows of the guitar industry in the 70s and 80s may influence the destiny of small builders. In the stories of Mr. Suzuki, the founder of Suzuki Guitars, we may learn how he played a critical role in Fujigen when the global production networks between Japan and the United States rose in the 1970s. In addition, we may also learn how both craftsmanship and entrepreneurship matter to his independent shop in the Japanese social context of the guitar-making industry.

Suzuki: The Japanese Luthier Who Teaches John Page How to Operate CNC

December 24, 2020, the day after heavy snowfall in Matsumoto, Nagano Prefecture, I came out of Hirata Station; the only scene I can see, except the public parking slots, is just farms and the pile of residual snow. I walked along the narrow path towards Suzuki Guitars Company, located in a warehouse adjacent to residential communities and farms. The owner of Suzuki Guitars, Mr. Suzuki, was already waiting

for me in his office.

Like HG Instruments Company's location and other luthiers in Hippie Town, hidden in a small community, Suzuki Guitars Company is also in a remote area far away from guitar markets. However, Mr. Suzuki's life and career are closely related to the global flow of the guitar industry. Before the interview, Mr. Suzuki showed me a photo to prove his global connection with luthiers in the guitar-making industry. That's a photo taken in the mid-1980s. In this photo, Mr. Suzuki showed John Page, the first primary master-builder of Fender's Custom Shop, to use a CNC machine. In addition, Mr. Suzuki showed me another photo hanging up on the wall and asked me whether or not I know the person with him in this photo. "Of course, he is Johnathan Lee,"[49] I said, "it's amazing. Has he visited your shop?" "Yes, he invited me to work with him, but finally, we don't work together," Mr. Suzuki said.

Despite his global networks with American guitar builders, Mr. Suzuki's skill formation began in Matsumoto because Fujigen hired his mother to make guitar bindings. "The distance between my home and Fujigen's factory is only 100 meters." Mr. Suzuki said. Because Mr. Suzuki has known the employees at Fujigen since he was a kid, he has established a close connection with experienced workers at Fujigen. Thus, when Mr. Suzuki created Suzuki Guitars, he hired Tomohisa Yamazaki, the first factory manager of Fujigen, to do finishing works at his shop when Mr. Yamazaki retired from

[49] Johnathan Lee is the most successful Taiwanese musician, songwriter, and music producer in Chinese societies, including in China, Taiwan, Hong Kong, and Singapore, from the 1980s to now. But very interesting, he created an acoustic guitar brand, Lee Guitars, in 2002. In an informal interview in 2018, Johnathan Lee told me that now Lee Guitars has two workshops: one in Taiwan, another in China. In addition, he also works with mass production factory in China.

Fujigen.

The connection with Fujigen directly gave Mr. Suzuki a chance to learn guitar-making skills in the United States. This is the first step for Mr. Suzuki to create his global connection. And in the beginning, Mr. Suzuki went to California to learn how to build guitars, then moved to Philadelphia. And all the skill formation process is related to the relationship between Fujigen and Hoshino:

> *Mr. Suzuki: The president, Yuichiro Yokouchi, introduced me to Yutaka Mimura, the first president and establisher of Fujigen. Like I said, he sold (Fujigen) to Yokouchi, right? Then he moved to the US. He had been working to establish his import company, and got Japanese-made cheap stuff, and then inspecting, and shipping to the US. And at the same time, Kunio Sugai was in Fender to be a guitar inspector from Morris Gakki (a guitar company in Japan). He was an employee of Morris. So, Morris and Mimura, the brother company, who exported to Mimura's place, was a neighbor company, the same building. So, Sugai was just an inspector. He was sent by Morris Gakki, because at that time, Morris was producing Fender acoustic, Fender's OEM, from Japan to the US. And Mr. Sugai was sent from Morris to the US, so he was also working with my shop for part-time work, because he needed money, he said. So, after he finished Fender's inspecting job, he came to Long Beach, then work with us, and taught me a couple of things, but terrible…In June 1976, in summer NAMM show, Mr. Yokouchi came to visit Mr. Mimura's home, you know, they were used to run the company, Fujigen, right? So he visited his shop, and he called me up and asked me a couple of things about how he's doing. "The things are a little bit different from what I expected," I said. Then Mr. Yokouchi suggested to me, "why don't you go to Philadelphia? There is a Hoshino USA. They do very good jobs, so you should go there. I will call them."*

Mr. Suzuki's learning experience at Hoshino USA is another example of the global cooperation between Japanese guitar builders and American builders in the 70s. Hoshino USA's predecessor, Elger Company in Philadelphia, founded by Harry Rosenbloom in 1959, was one of the very early pioneers that imported Japan-made guitars, of course, including Hoshino's guitars, to the US. Moreover, Harry Rosenbloom had asked Hoshino to make Elger guitars designed by Rosenbloom in the late 1960s and early 70s before Elger was bought by Hoshino and renamed as Hoshino USA in 1980. Figure 20 and Figure 21 may show us this global outsourcing relationship between Elger and Hoshino in the 1970s. In addition, we have to keep in mind that Hoshino had outsourced its production to Fujigen and Teisco in 1966; therefore, Elger's guitars were made by Hoshino's OEM[50] factories in Japan.

[50] OEM (original equipment manufacturer), means a company makes parts or entire products that may be sold by another company. In other word, it means outsourcing.

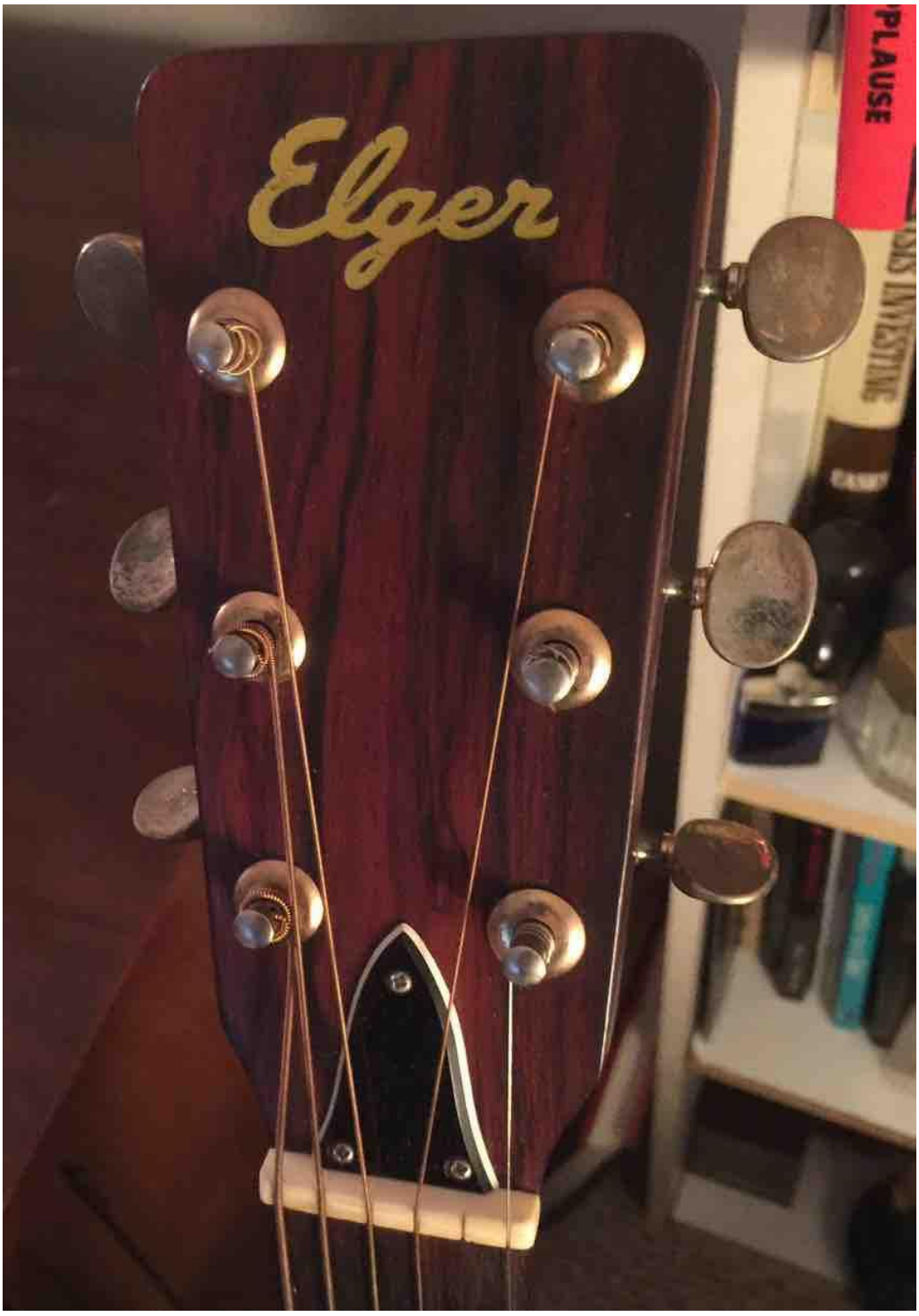


Figure 20 The logo of Elger on the headstock



Figure 21 Elger guitar built by Hoshino

Inasmuch as Fujigen was able to build guitars for Elger, why should Mr. Suzuki go to Elger despite an OEM factory? What did Mr. Suzuki expect to learn at Elger? If Mr. Suzuki only stayed in Japan, would he be different from his mother?

YC: I think you know, now many young guitar builders are coming from school…

Mr. Suzuki: Yes. When I joined Fujigen, you know, Fujigen is not a guitar factory it looks like now. It's just a kind of woodcraft company. Then,

Ibanez, Greco, Kanda Shokai, some other guys, just the spec sheet and drawings. They're making, that's all. No suggestion, nothing. So, when I joined it, it's the Beatles, Led Zeppelin, they're my school age. Before I joined it, no one likes rock music, some like that. We are strangers, not only myself but also a couple of same age guys coming in. So, fortunately, when I was a college student in Tokyo, my friend is a very strong person in the music scene, so he introduced me to everybody and took me to every live show in Japan tours. So, I was always backstage.

YC: And you have a chance to know players.

Mr. Suzuki: Yes. And at the same time, many companies, Yamaha, Ibanez, some other guys, are holding a guitar to get the endorsement contract. So, I know those guys. So, they knew me before I joined Fujigen when I was a college student. Then, when I joined Fujigen, many artist relations guys, in Ibanez, Yamaha, everybody, they knew me, and then do not know how to make instruments, so, they ask me a lot of things. "Is it OK?' blablabla…

According to the above interview, Mr. Suzuki shows us that the connection with musicians is an important criterion to distinguish a luthier from a worker. Just like Mr. Suzuki's mother, an assembler gluing biding on the edge of guitar every day, a worker could only know one skill of all guitar-making works but had no ideas about the whole music scene. In contrast with his mother, knowing players and salespeople of other instruments companies gave Mr. Suzuki a different vision from his mother. However, this difference between a luthier and an assembler is not enough to explain why the learning experience in the US remains important. In the interview, Mr. Suzuki told me that only in the US he could learn the whole guitar-making theory:

YC: You learned wood knowledge at Hoshino USA?

Mr. Suzuki: Yeah.

YC: I don't know. Both your parents worked for Fujigen, didn't they teach you anything about this?

Mr. Suzuki: Of course not. They just know binding. That's my mom's job. You should know that only this part they are professional, right? So, not the instrument, working on the wood. That's all. That's why I said things were changing when I joined Fujigen because I know artists, I know fixing guitars, right? Something like that. And I already studied how to make guitars and basses, right? So that's why Hoshino, Yamaha, they asked me because before me, there is no composition like that.

In this passage, we can infer that the global outsourcing cooperation between Japan and the US is just the extension of the lawsuit guitar production because Japanese guitar builders, despite their super adroit woodworking craft skills, have no idea of the guitar-making theory. Neither copying the original American designs nor receiving the outsourcing contract needs to command the guitar-making theory. That's why Mr. Suzuki was different from his cohorts at that moment because the learning experience at Elger Company gave him a chance to know the guitar-making theory.

Mr. Suzuki's skill formation experience is helpful to the creation of his brand, Suzuki Guitars, and the recreation of Fender USA. In the interview, Mr. Suzuki very clearly remembers how he helped Fender USA build nine basses without original guitar design plans:

YC: How about Fujigen during that period? I know that in 1982, Fender USA invited Kanda Shokai, and Fujigen…Fujigen is the factory to create Fender Japan…

Mr. Suzuki: Right.

YC: During that period, did you play any role in this process?

Mr. Suzuki: Yes. In the late 1970s, almost the CBS time was over, and we had one big choice, Roger Balmer, and Bill Schultz, Yamano, Kanda Shokai, Fujigen, joined with Bill Schultz, and then he bought it, right? Then, we recreated Fender.

YC: Fender Japan?

Mr. Suzuki: No, no, re-create Fender USA.

YC: Oh, I know, they bought Fender from CBS.

Mr. Suzuki: US culture is very weird, you know. All the drawings, equipment, small stuff…was missing, because they took it, Gibson as well, the same thing. That's why there were few drawings left.… Actually, Fender still had something, I think, they got contracts with factories, no other companies, Fender Japan as well. They don't have any contracts with them. The production license was direct to the factory always. So, I've been there with my boss to get contract thing. Then, they showed me nine or ten magazines. They showed me this page, "this model we like to make it." "Send me the drawing," I said. "No, no, no, we don't have any drawings, sorry. So, you have been making nice copy guitars by Greco, right?" Then he showed me a couple of issues drawings. And then, I made it mixed, you know, as possible as I can make the original, so I changed a couple of parts, then made nine different basses.

According to Mr. Suzuki's recall, Japanese guitar builder's skills to have made unauthorized lawsuit guitars now help Bill Schultz's new team recreate Fender USA. However, we have to keep in mind that this cooperation happened in a specific context- the global mobility of the guitar-making skills in the 60s through the rise of Japanese Copyists. Additionally, the civil litigation with HG Instruments in 1984 and the sale of Fender to Bill Schultz in 1985 also played a role in the cooperation between new Fender USA and Japanese copyists. Under this historical context, Mr. Suzuki participated in the recreation of Fender USA and established his networks in the global guitar-making

industry.

How to Run Business? What's Vintage?

In 2002, Mr. Suzuki left Fujigen and created his brand, Suzuki Guitars. However, very different from many independent luthiers in the US, Mr. Suzuki maintains his OEM contracts with other guitar brands. In other words, besides making his original guitars, Mr. Suzuki makes guitars for other brands. Therefore, in this section, I will discuss two essential dimensions in an independent luthier's business strategies: How to reproduce the social relations and networks in the industry? How to create its brand tradition?

On Suzuki Guitars Company's official website, a paragraph in Mr. Suzuki's self-introduction catches my eyes. In this paragraph, Mr. Suzuki explained why he decided to open his shop and what's the ideal of so-called "Vintage":

> *OEM life has no place for individual creativity. A lot of questions and aspirations presented themselves, such as "Is that the mark that I have made in the industry?", and finally, my dream was to make a guitar that I thought, I want to leave our footprint in the world, I thought that "I will let everyone play guitars that are going to be called vintage instruments in 20 or 30 years!" Our instruments, our designs our craftsmanship that we build today will deserve the title of vintage in tomorrow's market. That is our vision that is our goal.*

This passage is interesting because it seems that vintage is not a concept related to history or tradition. In contrast, it infers something creative and incomplete. In Mr.

Suzuki's ideal, vintage, different from Fender's vintage based on the recovery of old and classical models, should be a new model recognized by users in the future. In addition, Mr. Suzuki doesn't like custom-ordered, because a custom-ordered guitar is designed by a user, not by a builder. In Mr. Suzuki's thought, vintage should be dominated by a builder. Any participation from a user will just denigrate the purity of vintage. In the interview, Mr. Suzuki clearly told me why vintage means future and why he has to refuse the user's participation in making a vintage guitar.

YC: What's vintage?
Mr. Suzuki: Vintage is not only the guitar, you know.
YC: I know, like wine.
Mr. Suzuki: Actually, what we are making is we hope….our products going to be the vintage in the future.
YC: Vintage in the future?
Mr. Suzuki: You know, there are some…I think, custom-made is someone, like an old man next door who doesn't know about guitar, and he orders it, we make it. It's a business, it's OK. But there is no knowledge about the instrument. That's why we don't want to do that. So, 100% of factory's ideas gave in this instrument, it's going to be the vintage. Because some part is somebody's idea, right? Who doesn't know about guitar, right? I don't like to do that. Like a vintage car, if you change the door mirror, nobody will say that's a vintage car, because that's someone's idea, an amateur's idea. That's my opinion.
YC: Can I say that this vintage means something original?
Mr. Suzuki: Of course, otherwise, it's impossible.

Mr. Suzuki's opinions give us a chance to deliberate the importance and difficulty of creating an original design. As an independent luthier, Mr. Suzuki, like other

independent luthiers, has to release his original designs. From those big companies' perspectives, such as Fender, Gibson, or Martin, vintage could mean their best-selling models. However, it's very hard for a new luthier just jumping in the market to show his customers the so-called "vintage model" because of lack of brand history, despite an experienced luthier who has made OEM guitars for several decades. This is why Mr. Suzuki expects that maybe 20 or 30 years later, his brand will become "vintage." From this perspective, we may learn that being a luthier is just the beginning of another step in the guitar-making industry. Climbing up the top of the ladder doesn't mean reaching success. In contrast, it just means jumping into a different career stage and facing different challenges in the market.

What's the challenge in the market? Maybe the biggest challenge is how a luthier's new design can continue in the market for 20-30 years. The worse thing is, as a new brand, it's almost impossible for an independent luthier to survive by only selling his original model guitars. Therefore, Mr. Suzuki has to depend on OEM orders for supporting the development of his vintage models even if he is an experienced guitar builder, even making guitars and basses for Billy Sheehan, Jaco Pastorius, Steve Vai from the 70s. In addition, we have to keep in mind that nowadays, Mr. Suzuki remains in this outsourcing relationship with Hoshino and Fujigen, although he left Fujigen in 2002. But how can he keep the balance between the management of his brand and the OEM orders?

> *YC: This is what I learn from you today. The vintage means you create something, maybe fifty years later or something, in the future, it's still there,*

and will not change.

Mr. Suzuki: Yeah.

YC: But is it easy?

Mr. Suzuki: I don't think so. Because the music scene is always changing, every year, changing and changing. So, sometimes, business is very tough…but we have to continue the company, that's why we work for OEM. You know, I think you already realize that our industry only one item can't survive. That's why they make amplifiers, other products and even bought another brand. You know.

YC: You still do OEM works?

Mr. Suzuki: Yeah.

YC: How do you make the balance? OEM seems to face the real world. Maybe you can earn quick money from OEM. You have a good reputation. I know many Americans or other brans would like to ask you to do OEM for them. Maybe you can make money from that, but your dream or idea…

Mr. Suzuki: That's what I said. There are some standards. To be a vintage must be continued in the future. Do you know Variax Guitars[51]? I never heard that brand, right, because it's not continued. Like Fender, Gibson, they're continued. It's really major for me, you know?...The reason why we do (OEM) for Ibanez is to keep my brand stable, that's all. I was asking the chairman of Hoshino, "please be cautious. If Suzuki Guitars Company becomes big, maybe a little big Ibanez; but on the other hand, if Suzuki market did shrink, Ibanez comes down." The good thing is our production is so small, so Ibanez askes us, I mean, offers us "230 guitars a year." So, what we should do is to ship 230 within these months: this month 10, this month 20, this month 5…blablabla…doesn't matter. Because for fulfilling the container, only five pieces are impossible, right?

If we review Mr. Suzuki's life, we may agree that his life itself is part of the global mobility of the guitar industry between the US and Japan from the late 1970s to 2020.

[51] Variax is a guitar brand owned and run by Line 6 in California. And very interesting, Line 6 is a subsidiary of Yamaha.

Learning a guitar-making skill in Hoshino USA in Philadelphia in the late 1970s, hired by Fujigen for making copy guitars, helping Bill Schultz recreate Fender USA and making classical models without original drawings in the 80s, and finally creating his shop in 2002. Like other luthiers, he climbed up from the bottom of the ladder and gradually reached the top, and integrated both craftsmanship and entrepreneurship in his business. As a unique guitar maker, what's his expectation for his brand? Very surprisingly, he mentioned Leo Fender:

> *I don't care about who made it. This model is! This is the most important. Like Fender vintage. Who made this? No one can tell. That's the point. That's why I don't like to make my company my personal company, because once I quit the company, the brand should be down. I don't want to do that. That's why I need the company that owns the brand… Leo Fender's gone; even he established new companies, Musicman, G&L, but Fender still there. They don't care about who the builder is.*

Whenever I repeatedly listen to the interview records, Mr. Suzuki's opinion, "Leo Fender's gone, but Fender still there," just reminded me of HG Instruments Company's president's opinion on Gibson's bankruptcy news- "Gibson will never be defeated. The ownership may be changed, but the brand will always be there. In contrast, what really at risk is a small company, like us."

Summary: Strive to Survive from Illegal Copy to Innovative Model

From HG Instruments and Suzuki Guitars' stories, we can learn two different outsourcing models in Japan, the Hamamatsu model and the Matsumoto model, as well

as their integration into the global production networks.

HG Instruments Company's story, ostensibly, is a cliché to describe how an illegal copyist in a developing country cannot make easy money anymore by manufacturing counterfeit products with its cheap labor due to the copyright lawsuits, so it turns to create its innovative products. However, we have to notice that this transformation from copy to innovation is based upon the transformation from mass production to craft-made[52]. Suzuki Guitars company is another story to witness how a craftsman could climb up through the ladder towards luthier from an employee at a copy guitar factory to an independent shop founder. In this climbing process, we see how he participated in the recreation of Fender in the 1980s. Without understanding the global context in the 70s between Japan and American guitar-making industries, we will not understand the growth of HG Instruments and Suzuki Guitars.

However, we can't forget one difference between American builders and Japanese counterparts. Unlike American firms, which have their brand tradition and classical models, Japanese firms, as a copyist and a subcontractor, despite their amazing craftsmanship, are hard to increase value on their guitars due to the lack of classical models. Suppose they want to keep their brand alive on the market. In that case, they have to desperately reduce production costs and increase the revenue through outsourcing, either asking others to be their subcontractor or being a subcontractor for

[52] HG Instruments Company could be the only one case in this chapter can't be explained by the concept ladder towards luthier, because the birth, growth, decline and rebirth of this company is not from an individual guitar maker. In contrast, it had been a mass production guitar company before the restructuring in 1984. We may even conclude that it's not so much a luthier shop as a Japanese variant of Fender Custom Shop in USA: from mass production to craft-made.

others.

Chapter Seven The Global Mobility of the Craft Skills in Taiwan

The Rise of Guitar Making Industry in Taiwan

The early stage of the guitar industry in Taiwan is almost created by foreign direct investment, especially Yamaha.

The establishment of Kaohsiung Yamaha should be understood under the social and political context in which the Taiwanese government strived to promote export-led development. In order to attract foreign direct investment, the Taiwanese government made a variety of policies, including the establishment of export processing zone, tax-cutting, offering cheap land for industrial usage. In addition, a mass of cheap but well-educated workers is also an important reason for foreign investors.

Under this social and political climate friendly towards foreign investors, Yamaha decided to establish their factory at Kaohsiung Export Processing Zone in 1971. According to the official document, the investment amount of Kaohsiung Yamaha is about five million dollars and hired more than 13,00 workers (but only hiring around 800 workers). In addition, it's supposed export sales in 1971 would be around 1,413,600 US dollars. Besides, according to the statistical data, during this period between 1971 and 2003, Kaohsiung Yamaha produced more than four million guitars for selling to more than 70 countries.

However, in 2007, due to the higher and higher cost of production in Taiwan, the headquarters of Yamaha decided to permanently shut down Kaohsiung Yamaha and move it to China and Indonesia. Similar to the American experience in the late 80s, the decline of a mass-production factory in Taiwan results in the transformation of the

guitar industry from foreign direct investment-based and export-oriented mass-production guitar industry to the craft-based, import-oriented local boutique shops.

This part will analyze the networks composed of four electric guitar luthiers and their business partners in Taiwan. The creation of the networks reflects the four-stage transformation of Taiwan musical instrumental industry: first, the rise of repair skills in the mid-1980s; second, the emergence of custom-ordered production in the late 1990s; third, the commodification of luthiery education in the mid-2000s; finally, the return of hired apprenticeship since the 2010s. Like HT1-1 is the key person to create the industry networks in Hippie Town, TWE1-1 is the indispensable person to import the guitar repair skills in Taiwan in the 1980s.

TWE1-1: The First Guitar Repair Mechanic in Taiwan

TWE1-1, a 70-year old retired luthier now managing a Penarakan (also called Baba-Nyonya) style restaurant in Taichung Taiwan, is a Singaporean who migrated to Taiwan in 1986 and was a session singer in Taichung in the beginning. Before moving to Taiwan, he had learned how to repair guitars from an American who managed a guitar workshop in Singapore in the 1980s. According to TWE1-1's experience, in the 80s, most guitar repair mechanics were amateurs who only had very few resources to learn the repair skills. One essential resource was the guitar magazines, books, or videos released by StewMac[53], despite English. Therefore, TWE1-1 had known repair

[53] StewMac was funded in 1986. Now, StewMac has gradually become the largest e-business manufacturer and provider of guitar parts and luthiery tools. If internet is accessible, any luthier can easily order guitar parts or tools through StewMac's official website, and it will deliver their products worldwide. In addition, StewMac also uploads a lot of videos on YouTube to teach people how to repair guitars with StewMac's luthiery tools.

skills, including installing new frets, replacing old ones (re-fret), and repairing the cracks on the guitar surface before going to Taiwan in 1986.

In the 80s, because of the lack of qualified guitar repair mechanics in Taiwan, guitar players are forced to buy a new guitar to replace the old guitar if the old guitar has problems. Some players will ask carpenters to repair their guitars. Despite knowing woodworking skills, carpenters could not offer players satisfactory services because they had very little guitar knowledge. Hence, many guitar players were used to owning a lot of guitars that need to be repaired.

The coming of TWE1-1, undoubtedly, gave Taiwanese guitar players hope to repair their broken guitars. Meanwhile, TWE1-1 was also happy because he almost monopolized the whole guitar repair business in Taiwan. TWE1-2, one of TWE1-1's apprentices, reminds how busy they were because they received countless repair cases:

> *Almost all guitar players, regardless of their level, professional players or amateurs, they came from everywhere to Taichung and asked TWE1-1 to repair their guitars. You know, Taichung is located in the center of Taiwan, so it's easier for players from everywhere to Taichung. Many of them came to our shop with 7 or 8 guitars one time. If TWE1-1 can repair one or two of those broken guitars immediately, that player would bring back the repaired guitars and leave those unrepaired ones here. Then they will make an appointment with TWE1-1. Next time they will be back again and bring back other guitars. From 1988 to 1995, we were always busy.*

TWE1-1 affirms TWE1-2's memory:

> *Some players came to my workshop with a dozen of guitars. This made me*

guess maybe I can earn my living by repairing guitars. You know, they came from everywhere, Tainan, Taipei.

Because of the unique repair skills, TWE1-1 became an irreplaceable repair mechanic in Taiwan and was invited to move to Taipei, the largest city in Taiwan, by some guitar stores. When TWE1-1 received this invention, he quickly decided to move to Taipei:

Almost all dealers of those international guitar companies were in Taipei, including Fender, Yamaha, Ibanez. When I lived in Taichung, they were used to send their guitars to me. So, if I move to Taipei, it will be more convenient for both sides.

But in 1997, TWE1-1 was back to Taichung again because RMC, a local instrumental Store, invited TWE1-1 back to Taichung by paying him 2,700 USD per month (in 1997, the average exchange rate between USD and NTD was 1: 27.5). Compared to the basic minimum wage in 1997 was around 576 USD, RMC's high salary successfully persuaded TWE1-1 to receive this job-hopping from Taipei to Taichung. In addition, 2,700 USD was just part of TWE1-1's total income, and he still earned money by being a session player and managing his guitar shop. However, one year later, TWE1-1 decided to reject RMC's contract due to the outbreak of the Asia Financial Crisis.

TWE1-1's service fee policy is very flexible. He was used to giving students a special discount but charged professional players more expensive despite the same

repair service:

> *I remember this case. One guy came to Taichung and asked me to do refret work on his guitar. He told me that another mechanic will charge him 20,000 NTD. After checking his guitar, I spent one hour completing this case, and I charged him only 2,000 NTD.*

TWE1-1's charging policy is very different from the contemporary mainstream. In the guitar craft academy of Musicians Institute, lesson 101 of guitar repair is "never undersell yourself," because no customer will respect cheap service, let alone service for free. However, TWE1-1 didn't care about it. He was even glad to teach people how to repair guitars for free:

> *YC: So, during the 90s, can I say that repairing guitars is your primary business?*
> *TWE1-1: No. I just do it for fun.*
> *YC: But it will take you lots of time.*
> *TWE1-1: Just like sitting next to a table, with tools, drinking beers and repairing, people just coming…*
> *YC: Why do you think this is fun? I can feel that…if your guitar sucks and can't play, and I'm able to repair, I feel achievement. You think it's fun, because is it achievement, or…I don't know.*
> *TWE1-1: For me, nothing is serious.*
> *YC: Nothing serious?*
> *TWE1-1: Anything is not severe. Like I am a chef, I am a professional chef. I start my restaurant 17 years, so I told her everything, just behind her, for fun.*

I just do it for fun. TWE1-1's idea reflects the fact that guitar repair skill was not commodified before 2000. In addition, we can't forget that TWE1-1 was the only one guitar repair mechanic in Taiwan. His irreplaceable position gave him a unique strength with which he didn't need to worry about the lack of business. That's why he can treat guitar craft as a personal hobby rather than a formal career. This is a huge difference between him and his apprentices.

Besides guitar repair services, TWE1-1 also made guitars. However, he does not make a guitar from scratch. Instead, he buys semi-finished goods and parts and then assembles them. TWE1-1 was used to order semi-finished goods, especially the semi-finished body, neck from Warmoth, one of the biggest American guitar companies making various guitar parts, guitar bodies, necks, and tools. After receiving semi-finished parts, TWE1-1 will assembly a guitar with these parts. This is very different from making an entirely new guitar from scratch.

TWE1-1's story proves that the rise of the craft-made guitar industry depends on the combination of craftsmanship and entrepreneurship. The former reflects an artisan's craftwork; the latter the ability to do a business. If you have good skills and received enough cases, you don't need to worry about the competition. If you're the only artisan offering the repair services, being a hired repair mechanic doesn't mean being alienated labor. Because it's the employer needs you, not you need your employer.

TWE1-2: The Mobility of Craft and Entrepreneurship

The Skill Formation of Guitar Craft: From Learning with a Master to International

Student

TWE1-2 was one of TWE1-1's apprentices in the 80s. Very similar to his master, the TWE1-2's skill formation was based upon traditional apprenticeship: an apprentice learns skills from an experienced master by one by one tutoring and observation without systematic curriculum:

> *TWE1-2: "Learning from TWE1-1" is not a precise description. In fact, just fool around with him every day, you know, just like learning how to play guitar with a private tutor. I remember I went to TWE1-1's housing every day and asked him to repair my guitars, and I could observe how he was working. If I had any questions, I would ask him. After learning skills from him, I began working with him to repair his customers' guitars. I kept this interaction with him for several years. What I learned from TWE1-1 were some basic woodworking skills, including refret, repairing cracks, not very complicated. But one thing I have to say, customer's expectations nowadays are different from the 80s. In the 80s, people would appreciate your works to repair their guitars and make them work again. In the 90s, making it work again was not enough. You're expected to improve its playability. How does the guitar's neck feel? Do you feel comfortable to fret or pluck the strings? In the 21st century, good playability was not enough. You're expected to recover the original and correct tone and sound quality.*

Actually, in order to fulfill customer's expectation, TWE1-2 decided to receive systematic guitar craft training in the United States om the late 90s:

> *In the late 90s, I was very frustrated because I had no idea why I couldn't recover the original tone nor explain to my customers why I used this strategy to repair their guitars. TWE1-1 taught me how to work, but he failed to explain why. That's why I decided to go abroad to learn guitar craft at*

Musicians Institute in Los Angeles.

TWE1-2's purpose of studying in the US, learning the guitar's structure, is the same as Mr. Suzuki's, but the context is different. In the late 90s, the rise of systematic luthiery schools, such as Musicians Institute, gave TWE1-2 a different choice. Musicians Institute had been a music school which only taught students instrument performance and vocal skill before 1994, in this year it was sold to Hisatake Shibuya, the owner of ESP Company (Electric Sound Products, 株式会社イーエスピー). Actually, in Japan, ESP Company also created its music school (ESP College of Entertainment, 学校法人イーエスピー学園) from 1975. Since Hisatake Shibuya has the ownership of Musicians Institute, he has gradually increased many courses and programs related to the contemporary music business, including audio engineering (2000), music business program (2002), DJ performance, and production (2016), Artist Producer and Entrepreneur (2018). Of course, Guitar Craft Academy (ACG) was also created in 2000. Therefore, TWE1-2 became one of two students in the first year of ACG in 2000.

ACG's curriculum in the first year was not structured very well. According to TWE1-2's recall, Musicians Institute even didn't have a formal classroom for students. So, Musicians Institute sent them to John Carruthers' workshop in Santa Monica:

> *The first year is very strange. If you see my certificate, it is issued by GIT (Guitar Program) rather than GCA. Because MI didn't offer formal courses for us in the first year, so we take the certificate issued by GIT, but we are*

sent to work with John Carruthers[54]*. John didn't offer us a systematic curriculum. We just work with him according to his daily schedule in his shop. But there is an advantage in his shop. On the one hand, we learned how to repair guitars; on the other hand, we know how to build a guitar from scratch. We can learn both in his shop*[55]*.*

Not only did TWE1-2 learn at MI in 2000, but he also went to Roberto-Venn,

[54] John Carruthers is the founder of Musicians Institute's Guitar Craft Academy. Before he received MI's invention to create GCA, he had been a famous independent luthier in Los Angeles. In Chapter Four, I briefly introduced his contribution to the use of CNC machine in contemporary guitar industry. John Carruthers' reputation was created when he worked as a repair mechanic at Westwood Music, a famous musical instrument store in West Los Angeles. Like many other luthiers, John Caruthers gradually earned his good reputation by repairing many famous guitar players, including Rolling Stones, Byrds, Doors, Eagles, CSNY, Fleetwood Mac, REO Speedwagon, Survivor, Peter Frampton, Foreigner, Lee Sklar, Chuck Rainey, Jimmy Johnson, Frank Zappa, Eric Clapton, Bob Dylan. Then he might have chances to build guitars for guitar players. Actually, in the US, "growing up together" is not an unusual phenomenon between unknown guitar players and young artisans. Both sides will keep long-term cooperation and earn their reputation in their different areas. Finally, both of them can move upwards to a higher position in their industry. Later, Guitar Player Magazine invited John Carruthers tow write the guitar workshop column. In addition, Yamaha also invited John to set up the service department. When John rejected Bill Schultz's invitation to run the Custom Shop in 1987, he received Leo Fender's invitation to consult with him on making the new model of Musicman Stingray. John Carruthers' story clearly points out the global transformation of guitar industry from the 1980s to 2000s: The rise of Japanese guitar industry resulted in the acquisition of music school in Hollywood. Then through the cooperation with local luthiers, the music school began to teach guitar craft skills for training labor force and fulfill the need of rising guitar craft industry. In addition, from John's story, we also learn that contemporary guitar luthiers, despite their craft-oriented skill formation, are totally different from their counterparts in the Middle Ages who only served for their isolated local market. In contrast, modern artisans have been involved in the global industry networks since the 1980s.

[55] 20 years later, GCA at MI becomes a very systematically and efficiently educational institute, which has two independent buildings located on Santa Monica Boulevard in Hollywood. In its independent building, there are three isolated rooms. In the first room, there are various powered machines, including band saw, belt sander, edge sander, drum sander, planer, inverted router, drill press, etc. The second room is the lecture classroom in which students will take their required courses. The third room is used for winding the pickup' coil and soldering. The second building close to the first building is used for painting room in which students can learn how to paint their guitars by using spray gun. The curriculum in GCA of MI included two parts: lectures and project guitar. All lectures are related to required knowledge and skills for making and repairing a guitar, including electronics, basic knowledge of pickup and electric guitar's circuit diagram, fretwork and setup, instrument design, fabrication, finish work, guitar repair, etc. In addition, all students must build their final project guitar by using all knowledge and skills learned from these required courses. It's very funny that students have to take midterm and final exam in every quarter. Compared to TWE1-2's experience in 2000, the curriculum of GCA now is very institutionalized and industrialized. **However, due to the outbreak of COVID-19 and the declining rate of enrollment, MI announced to permanently close GCA in the summer of 2020.**

another luthiery school in Arizona in 2004, to learn traditional guitar-making craft and knowledge. Different from the experience at Musicians Institute, TWE1-2 expected to learn an entire process of "craft-oriented guitar production":

> *AT MI, what I learned is a modern industry system: if you give me power machines, I can build a guitar, right? But at Roberto-Venn, we are trained to make a guitar with hand tools. If you give me a hand saw and a chisel, I can build a guitar. That's all. At Roberto-Venn, I learned a new idea. I am a luthier; nothing can stop me. I can do it by myself. When I encounter a problem or a difficulty, I have to figure out what it is and then think about how to solve it.*

TWE1-2 is the first Taiwanese guitar maker who received systematic luthiery education in the United States. From being an apprentice of a Singaporean to going abroad, his various learning experiences reflect the global mobility of guitar craft from the 1980s to the early 2000s. In fact, his career development after going back to Taiwan also reflects different global mobility from Taiwan to China.

A. The Global Mobility of TWE1-2's Entrepreneurship: From Taichung to Taipei, and from Kaohsiung to Beijing

After back to Taiwan from Roberto-Venn in 2005, TWE1-2 decided to move to Taipei because all the music business and opportunities are in Taipei. At first, he spent around one million NTD, about 30,000 USD, to create his guitar-making workshop[56].

[56] When I asked TWE1-2 how much he spent on his workshop, his answer is very surprising. "I

Very similar to John Carruthers, TWE1-2 has to earn his reputation by repairing professional players' guitars. Most of his clients had been very familiar with TWE1-2 before he went to the US:

> *Why did I go to Taipei in 2005? Because most players I know were in Taipei. When I still worked for the RMC instruments store in Taichung, I knew these guys who were still college students, and most of them organized their independent band. You know, in the 90s, there were many independent rock bands in colleges. When I returned from Roberto-Venn, many moved to Taipei and continued their music career, so they gave me a big favor when I created my independent workshop in Taipei.*

Again, TWE1-2's recall stresses that a luthier's career development correlates with his clients' development in the music industry. If those musicians still earn their living by playing guitar, they will need a reliable luthier, especially a luthier they have long-term cooperation with.

Besides building custom-ordered guitars and repairing players' guitars, TWE1-2 deployed his new social networks through privately tutoring apprentices. He received four apprentices. The first one is an Australian and not in Taiwan now. The second one is TWE1-3, the following case I will analyze later; the third one is another luthier in Taichung; the fourth one currently works in a music company in Indonesia.

Compared to systematic schooling education, apprenticeship, despite charging apprentices tuition fees, is more likely to keep social connections between tutors and

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don't know. And I never count it." TWE1-2 answered. In fact, all other luthiers told me that they have never clearly counted how much they spent on their workshop.

apprentices. In fact, if these apprentices are still making guitars in Taiwan, they are willing to cooperate with TWE1-2. The birth of DH Guitars, a new guitar brand founded by TWE1-2 and TWE1-3, is a perfect example of how the social connections between master and his apprentices matter to their career development.

The Rise and Decline of DH Guitars in Kaohsiung

In 2015, an unexpected disease made TWE1-2 change his life and career. He quickly understood that he couldn't work only by himself anymore because a one-person shop can't expand productivity. He asked his apprentices whether they are willing to work with him and create a new guitar brand. Hence, TWE1-2 and TWE1-3, TWE1-2's second apprentice, collectively create DH Guitars in Kaohsiung, the largest manufacturing city in Taiwan.

The establishment of DH Guitars can be seen as an excellent example to highlight that the business networks in the guitar industry may be derived from apprenticeship. When TWE1-3 returned to Kaohsiung in 2009, he still kept contact with TWE1-2 because TWE1-2 frequently outsourced some woodworking jobs to TWE1-3. Therefore, the establishment of DH Guitars is no more than a consolidation of their connections despite the end of TWE1-3's apprenticeship. DH Guitars was going to invite Jim, TWE1-2's third apprentice, to participate in the management of DH Guitars. Still, Jim refused this invitation because he was unable to move to Kaohsiung because of family reasons.

When they created DH Guitars in 2016, TWE1-2 immediately closed his

workshop. Additionally, each of them invested around one million NTD (around 30,000 USD) to purchase the required tools, guitar parts, and other materials. In order to enhance productivity, TWE1-2 unprecedentedly tried to recruit workers through the internet. Several weeks later, they hired TWE1-4 and Mark to work at DH Guitars.

However, DH Guitars Company was a short-life company and ended in 2017. When I asked TWE1-2 to conclude the reasons for failure, he attributed the failure to two reasons: the incorrect division of labor and lack of business experiences:

> *Well, I don't think that I prepared enough. That's all. You need two things for promoting your guitars: first, money; second, time. And I had none of them. I would have authorized TWE1-3 to build guitars and I could have focused on business if I had made the correct division of labor at DH Guitars. But in fact, I didn't make the correct decision. I didn't promote our business in Taipei. Instead, I went to Kaohsiung to make guitars with TWE1-3. This is totally a mistake. Every day we worried about our cash flow and capital chains. Meanwhile, I have to make guitars. Can you feel this pressure? We waste our capital every day without earning money. For example, you visited our factory in Kaohsiung, right? The rent there was around 2700 USD per month. We spent an entire year, but we earned nothing.*

The Close of DH Guitars is a precious lesson regarding the importance of entrepreneurship. In this lesson, we learn that making guitars is different from selling guitars. Like the division of labor at Fender and Taylor, Leo Fender could focus on invention and research because he hired Forest White for the production line management. Bob Taylor could concentrate on craft and invention because Kurt Listug would drive his car around the country to sell guitars. If young luthiers can't understand

the difference between production and business, it's hard to survive in this industry.

After this unsuccessful experience of starting a new business with his apprentice, TWE1-2 moved to Beijing, China, for another opportunity. Again, his every migration, including going abroad to learn guitar craft skills, from Taichung to Taipei, from Taipei to Kaohsiung, and finally from Taiwan to China, reflects not only the mobility of guitar craft but also his dauntless entrepreneurship.

Going to Beijing

On June 24th 2019, I made an appointment with TWE1-2 in Beijing, very close to the Workers' Stadium in the Chaoyang District. Before entering his workshop in a basement, I saw a famous Taiwanese guitar player just brushing past me in the doorway. TWE1-2 told me that this guitarist is also his regular customer. Undoubtedly, the migration of the musicians from Taiwan to China resulted in TWE1-2's decision of moving to Beijing:

> *Beijing is the capital of China and a big city full of the music industry and entertainment business. You know, many famous Taiwanese artists or guitarists have already moved to Beijing. That's why I move to Beijing. They came here to produce music, audio recording, live gigs. And they still need reliable guitar mechanics.*

Although the living expense in Beijing is more expensive than in Taiwan, TWE1-2 remains optimistic about his career in Beijing:

Now I received many custom-ordered from different cities in China. Some people even pay me cash directly before I build their guitars. In addition, my working hours are shorter than in Taiwan. I can feel the revenue is rising.

TWE1-2's migration history clearly shows us the strong relationship between the music industry and a luthier's destiny. His master, TWE1-1, is a Singaporean session player who learned guitar craft from American. Then he went abroad to learn a systematic guitar craft founded by a local luthier at a music school managed by a Japanese Guitar Company's owner. After closing his brand, he moved to Beijing to serve his regular customers and new local customers. He even suggested I move to China if I want to earn my living by making or repairing guitars:

If you can't find a job in college after gaining your Ph.D., I will recommend you to go to China. Don't go to Beijing, Shanghai, or Guangzhou because the market is too competitive. Going to the secondary cities will be a better idea, especially Changsha, the most populous city of Hunan Province. Many musicians moved there to search for a chance because there are many music-oriented TV shows in Changsha. If you go to Changsha, I believe you will have very good business chance.

TWE1-3: The Rise of Local Luthier in the Changing Urban Economy

TWE1-3's Skill Formation: From DIY to Apprenticeship

From the perspective of skill formation, we may see the difference between

TWE1-1 and TWE1-2. TWE1-1 is the first luthier bringing guitar craft to Taiwan, and TWE1-2, TWE1-1's apprentice, is the first international student going abroad to receive systematic luthiery education. Their uniqueness is separately related to the changing social environment and music scene in Taiwan. In TWE1-1's story, we can see how the instrumental repair market was rising and gave TWE1-1 a chance to offer his repair services to professional players. In TWE1-2's stories, we can see how the international craft education gave him an opportunity to learn new skills in the US.

TWE1-3, TWE1-2's apprentice, is the third type of skill formation: from DIY to apprenticeship. And his skill formation and business networks are related to the transformation of the urban economy in the 21st century.

Before asking TWE1-2 to receive him as an apprentice in 2009, TWE1-3 had spent almost ten years learning how to repair guitars. Based upon these DIY experiences, he repaired guitars in a local instruments store in Kaohsiung:

> *In 1994, I worked at an instruments store in front of the Kaohsiung railway station. During that period, many instrument stories had some broken guitars. My job was to fix them and made them work again. It was my primary job since 1994.*

From 1994 to 2009, TWE1-3 spent more than ten years learning how to repair guitars by himself. Similar to TWE1-2's experience, the more guitars he repaired, the more frustrating experiences he earned. As a self-learner, he didn't have enough knowledge to figure out the problem in a broken guitar. All he could do was try any different strategy he knew. In order to learn the complete theory and knowledge of

guitar-making, he paid tuition fees to TWE1-2 and became TWE1-2's apprentice in March 2009. How does TWE1-3 evaluate this 6-month apprenticeship at TWE1-2's workshop in Taipei? Definitely, TWE1-3 highly appreciates what he learned under TWE1-2's instruction:

> *Learning how to make and repair a guitar is similar to learning how to play guitar. As a guitar self-learner, you don't know what you're practicing. You just cover songs you like repeatedly, but you have no idea it's chord, melody, music arrangement. Being an apprentice is different. He will offer a system to rearrange all skills you need to know. Therefore, you will gradually understand the whole structure of a guitar. Then you can figure out how to make a guitar, what trouble this guitar has, and how I can fix it. Again, like playing guitar, after learning with a tutor, now I know how to analyze the whole structure of a song I play. What's its music model? What's its chord progression? What's its arrangement?*

TWE1-3 very clearly points out a huge difference between a self-learner (DIY) and an apprentice. The former is hard to command the whole knowledge system of the craft-oriented production. The latter will have a better chance to learn the whole knowledge system from an experienced master. After learning the guitar-craft skills from TWE1-2, TWE1-3 shows us the difference between DIY and apprenticeship.

TWE1-3's apprenticeship experience also reflects another fact that the lack of a systematic luthiery schooling institute will lead to the rise of private tutor apprenticeship. In the United States and Japan, guitar-making learners or amateurs have many different options to learn guitar craft, including the school system, private tutors. Taiwan is different from the US and Japan: if you cannot go abroad to learn guitar craft,

the only option is to learn from a luthier. Every luthier who offers a curriculum may have their different philosophy and strengths. Some will focus on electric guitar, some on acoustic guitar. However, learning with an experienced luthier, like TWE1-3's experience, may give you a chance to know the whole theory about the guitar-making craft.

TWE1-3's business networks: The Collaboration between a Luthier and an Instruments Store in the Context of Urban Economic Transformation

Unlike his master's global migration experience, TWE1-3 insists on making guitars in his hometown, Kaohsiung, a traditional industrial city where the first export processing zone was established in 1967 to attract foreign direct investments from the United States and Japan, including Yamaha Guitar Factory. Therefore, Kaohsiung becomes the center of the guitar-making industry in Taiwan in the 1970s.

The close of Kaohsiung Yamaha in 2007 due to the rising labor cost is a signal revealing Yamaha's restructuring of its global commodity chains and the transformation of the urban economy from manufacturing to the cultural economy. In the same year, when Yamaha closed its factory in Kaohsiung and invested in China and Indonesia, Kaohsiung City Government announced to establish Kaohsiung Music Center (KMC). This new music hall aims to encourage the development of the music industry in Kaohsiung, including audio recording, live music, and music history research and exhibits, rather than only instrument production. Meanwhile, it also creates a landmark for pop music performances in Southern Taiwan that supports local pop music, musicians, and the whole networks of the music industry.

The return of TWE1-3 from Taipei to Kaohsiung and the decision to create his TWE1-3 guitar workshop is a good match for this urban transformation because TWE1-3's workshop, a custom-ordered guitar shop, is not a traditional manufacturing factory. Instead, it should be seen as a boutique guitar shop that focuses on making high-end guitars with cultural value rather than cheap mass-production guitars.

It is worth noting that TWE1-3's brand is not created by himself. Instead, it has a close connection with HT Music, a local instruments store in Kaohsiung. And TWE1-3 himself is also one of the founders of HT Music. HT Music was founded in 2010 by four investors. Like other instrument stores in Taiwan, HT Music's business covers various items, including instruments sale, recording studio service, private tutors of instrument performance, audio recording, etc. The participation in TWE1-3's workshop gave HT Music the advantage that HT Music can offer instrument maintenance and guitar-making services.

However, TWE1-3's business was not good in the beginning. In my study, almost all guitar builders share the same bad business experience when they began their shop because they are nobody without any reputation. TWE1-3 kept in mind very clearly who is his first customer to order a bass guitar:

> *My first product, a bass guitar, actually, was ordered by my partner, one of HT Music's founders, when I just came back from Kaohsiung from Taipei. And I am super embarrassed about this case because I have not completed his bass guitar yet. Ten years, you know.*

It seems a ridiculous example of how dare a guitar maker procrastinate his contract

over ten years. However, if we consider the relationship between TWE1-3 and this customer, his partner of HT Music, this procrastination is not hard to understand. This contract can be seen as a promise of the consolidation between TWE1-3 and his partner for running HT Music. Besides this contract, both sides have to work together for running HT Music, for example, the maintenance and repair services for customers at HT Music.

TWE1-3 spent a couple of years creating his goodwill in Kaohsiung, and earned him a chance to move into Pier-2 Art Center, a primary urban plan led by the Kaohsiung City Government in 2015. The creation of his new shop at Pier-2 Art Center is an excellent example to highlight how the government policy matters to small business' destiny in Taiwan. The construction of Pier-2 Art Center is part of the urban rehabilitation policy that aims to reconstruct the abandoned warehouses in Kaohsiung Harbor and stimulate economic growth through cultural consumption and tourism. Besides the construction of Pier-2, Kaohsiung City Government also decided to build the Kaohsiung Music Center nearby Pier-2, which aims to promote the music industry in Kaohsiung, especially the recording, engineering, exhibit, and music research, rather than traditional instrumental manufacturing. The rise of the craft-made guitar boutiques, such as TWE1-3, has the best fit with the City Government's imagination of the cultural economy. In this imagination, the craft-oriented, domestic market-oriented guitar shops will create a new urban economy led by urban hipsters (Ocejo 2017). They may finally replace the traditional export-oriented mass-production industry.

However, TWE1-3 quitted this project very quickly. One year later, he moved out

from Pier-2 Center and created a new brand with his master, TWE1-2. TWE1-3 very clearly acknowledged that guitar-making is nothing more than a "three-D job"[57] full of dangerous power tools, dirty and toxic solvents, and difficult craftwork in an uncomfortable labor environment. Suppose he wants to survive in the competition. In that case, he has to return to the essence of manufacturing, focusing on industrial management and cost reduction rather than the cultural economy full of fancy but useless symbols. Therefore, he decided to work with TWE1-2 and collectively create DH Guitars, located in a traditional industrial area rather than Pier-2. And the aim of DH Guitars is to create a mass-production factory, not a boutique shop.

The close of DH Guitars means the effort to regenerate the mass production in Kaohsiung eventually failed. Hence, TWE1-3 decided to reopen his workshop and hired an employed apprentice, TWE1-4, to help him produce custom-ordered guitars again. TWE1-3's career development, different from TWE1-2's global migration, is just a local migration in Taiwan. But this local experience still can highlight the relationship between the restructuring of a guitar company's global commodity chains and a local luthier's destiny. The close of Yamaha Guitar Factory indicates the urban economic transformation from mass production to a new urban economy. Hence, Kaohsiung City Government expected to promote a new urban economy based upon the craft industry to replace traditional mass production. However, the essence of the guitar-making industry remains manufacturing, despite the craft-oriented mode of production. Finally, TWE1-3 returned to small production.

[57] Three D job means a dangerous, dirty and difficult job.

TWE1-4: What Price You Should Pay for Making Your Dream Guitar?

TWE1-4 was born in 1990 and graduated from college in 2002. After graduating, he worked as an electronic engineer at an electronic company in Kaohsiung Export Processing Zone. Despite a job with a good salary, the shift work system was tedious and exhausting to TWE1-4. Therefore, after 3-year work as an engineer, he quitted the job and decided to apply for the job at DH Guitars Company.

Making his dream guitar is another reason to quit the engineering job. However, why did TW1-5 not go abroad to receive systematic craft education? The answer is convincing: no money[58]. Hence, working with TWE1-2 and TWE1-3 was the best choice to learn how to build a guitar and say goodbye to the exhausting engineer life.

However, the weakness of hired by TWE1-2 and TWE1-3 is the unorganized and non-systematic learning process. AT Guitar Craft Academy of Musicians Institute, a student may receive the complete craft education in a 6-month curriculum and learn basic knowledge of instrument design, production, and repair skills for making his/her project guitar. In contrast, a hired apprentice is different. An apprentice should fulfill the need of the shop rather than completing your project guitar. Therefore, after

[58] Both the international craft education in a luthiery school and tuition fee-charging private apprenticeship are expensive. The tuition fee of Musicians Institute's Guitar Craft Academy is 8,000 USD per quarter. So, the total amount will be 16,000 USD for two quarters. If you want to learn acoustic guitar design, you have to enroll in the third quarter, which means to pay another 8,000 USD for the third quarter. If you want to learn guitar craft at ESP College of Entertainment in Tokyo Japan, a 2-year education system, the tuition fee for the first year is around 1,500,000 Yen (around 14,500 USD); the second year 1,300,000 Yen (around 12,621 USD). If you want to learn how advanced technology can be used in guitar craft industry, such as the application of CNC, CAD and 3-D printer on guitar craft, you may enroll in the third year, which means another expense of 12,621 USD for tuition fees. All above expense is just tuition fees without the living expense in Hollywood or Tokyo. If you decide to pay tuition fees to a local luthier in Taiwan, like the relationship between TWE1-2 and TWE1-3, the expense will be cheaper. Although the charging will vary annually, you're still supposed to spend from 200,000 to 5000,000 (around 6,666 USD to 15,151 USD).

working for around two years, TWE1-4 cannot build a guitar by himself independently yet. And he spends all the working hours completing TWE1-3's commands in the shop, rather than learning skills by working his master.

Does it mean that no tuition fee is the only advantage to be hired by a luthier? The answer may be no because many luthiers are glad to allow their apprentices to build their project guitars with their machines. For example, HT1-1 has an open day system that allows his employees to make their guitars with machines at the shop. Fodera, a famous electric guitar brand in New York City, also has a similar institution to encourage its employees to develop their creativity. Similarly, TWE1-3 also allows TWE1-4 to make his guitars at the shop, but TWE1-4 must complete his jobs first.

Despite TWE1-3's permission to use his machines, TWE1-4 didn't build his guitar with TWE1-3 machines yet. He just made a cap for his guitar's cavity. Even now, TWE1-4 cannot draw the plan of his dream guitar, much less have enough knowledge and skills to build a whole guitar. However, to a young amateur who can't pay the expensive tuition fees, being a hired apprentice is the best choice for TWE1-4.

The last question to TWE1-4 is how he comprehends and evaluates his labor conditions? In other words, what does guitar-making work mean to him? Very surprisingly, TWE1-4 understands the essence of this industry without too much unrealistic illusion:

> *When TWE1-2 and TWE1-3 interviewed me, they told me that this job is very different from many people's imagination. In fact, making a guitar is very exhausting physical work. You should have a correct understanding prior to working with us.*

Making a guitar is an exhausting job. However, people interested in this industry often overlook this fact, especially those interested in craft guitar manufacturing. But the more we learn about this industry, the clearer we can comprehend that exhausting work is not enough to describe this industry's labor condition. I have to repeatedly emphasize that the essence of guitar-making, regardless of the production modes, mass production or craft-made, is an exhausting work full of dangerous power machines, toxic solvents, noise, and dust. When we appreciate the beauty of a guitar made by an artisan, we may not understand how this artisan has been suffering from an uncomfortable and dangerous labor environment. Only participation in the labor process, like TWE1-4, can help people make sense of the reality in the guitar-making industry, which is no more than traditional manufacturing. All power machines used to make guitars, including band saw, router, belt sander, drill press, etc., will hurt workers and artisans quickly if you don't operate them carefully. But the essence of this labor process is concealed by the beauty of the guitar.

Therefore, when TWE1-4's friends, especially his previous colleagues serving in the IT industry, are jealous of TWE1-4's decision of job-hopping from a boring engineer to a cool guitar maker. TWE1-4's response is not surprising: "I told them that this industry is not like their fantasy. Well, it's just a regular woodworking job, you know."

Another reality an outsider will have no idea is the salary and the precarious employment. When TWE1-4 still worked at an electronic company, his salary was

around 1,300 USD monthly. If he were designated to work on the graveyard shift, from 11 pm until 7 am in the following day, he would earn 2,300 USD monthly. However, after being an employed apprentice at DH Guitars and TWE1-3's workshop, his salary just reached the minimum wage in Taiwan, around 800 USD monthly. Therefore, when TWE1-4 decided to quit his job in the IT industry, his family, especially his parents, did not encourage him to make this decision. However, his dream of being a guitar maker pushed him to walk into the shop of DH Guitars. But unfortunately, TWE1-4 was laid off due to the close of DH Guitars next year. Many young artisans often overlooked low salaries and precarious employment before they decided to learn this craft.

But why did TWE1-4 accept TWE1-3's invitation to work with him when DH Guitars was closed? Does TWE1-4 not worry that the layoff will happen again?

> *I don't worry about that. I know that TWE1-3 has goodwill in this industry. And I believe that it's an excellent chance to learn skills from TWE1-3 through working with him. I know that I can learn something here, and I want to learn something more.*

Learning how to make a guitar is one thing; selling guitars is another. If TWE1-4's dream is to build only one guitar for himself, learning by working is very smart because he can earn a salary without paying unaffordable tuition fees. However, if TWE1-4 is going to create his shop, after all, he has to face various difficulties, including investment, management, business connections, etc. All of the above challenges result from a luthier's entrepreneurship rather than craftsmanship.

Creating a craft-oriented guitar shop needs big money for hand tools, power tools, and architecture reconstruction. All my informants can't precisely remember how much they invest in their shops, but none of them told me that the budget could be lower than one million NTD (around 30,000 USD). The architecture reconstruction might be the most complicated one. For example, in order to preserve wood, there should be a particular room with an air conditioner to control the humidity and temperature. Some luthiers will build s separate painting room for environmental protection if they don't want to outsource the painting to professional painters. The importation of instrumental woods is another considerable expense because qualified sound woods are scarce. Some species, such as Brazilian Rose, has been listed as endangered species and protected under international trade restriction. Moreover, in order to prevent the invasion of microbes and worms from foreign, luthiers should prepare many required documents for passing the various inspections at the Customs. As an employee, TWE1-4 doesn't need to worry about them, but he will face them after all if he decides to open his shop in the future.

Even though TWE1-4 can overcome all above difficulties and challenges, it doesn't mean that he can receive orders on the market because all investments can only prove that you have professional equipment, which may fail to authenticate your craftwork quality and reputation. Improving the craftwork's quality and having a good reputation need time and experience. Therefore, many luthiers have to earn their living by repairing guitars for several years; after earning enough good reputation, they will likely have a chance to make guitars.

The review of TWE1-4's interview, we may figure out that the craft-making industry in Taiwan is not only an exhausting physical work but also a precarious life decision. Beneath the beautiful and cool surface of a guitar, the truth is the dangerous and dirty working environment and unpredictable and unguaranteed future. From TWE1-2 to TWE1-4, we may see many challenges they have encountered, including the global migration, the close of business, the expensive expense to open a shop, and skill formation.

From these four guitar makers' stories, we may learn that their career development and opportunities are highly related to the general social change and can't be entirely determined by themselves. Too many unpredictable factors will impact their business. What's worse, we may also predict fewer opportunities young generations may have and the higher cost they have to pay for creating their shop.

Summary: Is Making Guitars a Cool Job?

Obviously, four of these guitar makers have different experiences of creating value on their guitars. And their various experiences are highly related to social development in a different historical stage.

TWE1-1, undoubtedly, is the luckiest one of them. As the first guitar repair mechanic, TWE1-1 migrated to Taiwan with a monopoly on repair skills during the 80s, the wealthiest period in Taiwan Society. He could easily earn his living in Taiwan by being a session player as a guitar repair guy.

TWE1-2's advantage is his global migration experience. There are two different

strengths in this advantage. First, going abroad to learn guitar craft strengthened his professional image on the market. According to the interview, we may learn that he is very confident of his skills learned from the United States. Second, just like his master, TWE1-1, TWE1-2 is never tired of moving to a new place and restarting his business. Based on his global migration experience, from Taiwan to the US and from Taiwan to China, this entrepreneurship gave him more chances to create different business networks with different customers.

TWE1-3's value is created through the combination of multi-factors locally. First, in his early stage, he could receive help and order from his partners of HT Music. Second, he could receive many repair cases through HT Music and earned his reputation. Third, participating in Pier-2 Art Center, despite an unsuccessful experience, gave him a chance to be promoted by the government. Fourth, now he hired an artisan, TWE1-4, to work for his guitars.

What we have to notice is the future of TWE1-4. We should further ask if TWE1-4 may have the same advantages of building and selling his guitars like these senior luthiers; if not, maybe the only benefit is "cool job," but TWE1-4 clearly knows that this "cool job" could only be an illusion.

In Richard E. Ocejo's research on the rising craft economy in New York City under the neoliberal context, by exploring the rise of four craft careers, bartending, distilling, barbering, and butchering, he argues how traditionally low-end urban service jobs can be turned into a fashionable, fancy, and cool service job attracting young and well-educated hipsters. Ocejo's observation challenges a fundamental research question in

sociology of work: what is a good job? What is bad (Kalleberg 2011)? In Ocejo's research, he argues that the real question to these hipsters is how to select a cool job, rather than defining the distinctions between a good job and a bad job. To these hipsters, "Cool" jobs, even "bad" ones, possess an irresistible aura that can either overcome or mask their negative conditions (Ocejo 2017:132).

Ocejo's concept, cool job, partly explains many outsiders' illusion of the craft-made guitar industry. Certainly, guitar makers enjoy the feeling of achievement by making a guitar from scratch to completion, which can justify their career decision, despite a "3 D job" with low pay. The feeling of a "cool job" plays a critical role in concealing the fact that this job is nothing more than a bad job. Despite explaining the rise of the craft economy in New York City, Ocejo's argument is persuasive in a specific context, the changing urban economy, and can depict four guitar builders' life and labor in Taiwan, but not a general principle to explain all guitar makers.

In the next chapter, we will learn about guitar builders' experience in China, a social environment completely different from New York And Taiwan. We will also learn how Chinese guitar builders may add value to their guitars and how they can learn craft skills during the 1990s, the period of "Chinese Economic Reform."

Chapter Eight Guitar Makers and Chinese Economic Reform

In late June 2019, I went to the Beijing Center of the University of Chicago to present a paper at the conference on June 22. At the conference, I met Tseng, a Ph.D. candidate of anthropology at the University of Chicago. After the end of this pleasant conference, Tseng invited me to participate in another conference on June 23, focusing on the rise of new cultural movements among workers in China. For the sake of free lunch, I am delighted to accept this invitation.

Unlike the academic conference I participated in yesterday, the organizers invited a music band, New Workers, to play their original music at the conference. After their gig lives, band members explained the meaning of lyrics and the relationship between these songs and Chinese working-class people's destiny. Their songs are related to the difficulties shared among millions of migrant workers from rural areas to big cities, including their homesickness, poor labor conditions, low salaries, and dreams. In the Q and A time, I had a chance to talk with Mr. Xu, the guitarist, and vocalist, and he mentioned that I'm interviewing guitar makers. "I can introduce you to a local guitar builder. I think you should know this guy." Xu said.

On June 28, Mr. Xu brought me to visit CHN1-1's workshop in Tongzhou, a southeast district in Beijing. In CHN1-1's workshop, I also knew his apprentice, CHN1-2. From CHN1-1's story, we may learn how the "Chinese Economic Reform" in the 1980s resulted in the rise of craft-made guitars in China. Furthermore, from CHN1-2's story, we may learn the difficulties of young artisans choosing this career under an unfriendly social context.

CHN1-1: Learning Guitar Craft from a Son in a Chinese Communist Family

CHN1-1, born in Sichuan Province in 1970, is an acoustic guitar builder who created his brand in 1998. From learning how to build guitars to create his shop, he only spent six years:

> *In the beginning, I loved playing music, but gradually I knew that I have no talent. I came from a poor village of Sichuan Province in the early 90s. My family was very poor, so my parents could not give me money for playing music. 30 years ago, we even had no idea how to earn money for the next meal. So, I went to Beijing. In 1992, I found a job at a tiny guitar shop. And in 1998, I created my independent shop, Fang Guitars.*

Maybe guitar builders in the United States, Japan, and Taiwan will be jealous of CHN1-1's incredible velocity towards an independent luthier. However, we can't forget CHN1-1's specific context. All his stories should be told from how he learned guitar craft from a son whose parents are Central Party School of the Chinese Communist Party.

CHN1-1's Skill Formation

> *CHN1-1: I created Fang Guitars in August 1998. Before 1998, I worked for several different guitar shops. You know, in the beginning, just because I love music. But I know that I have no talent to be a musician. Moreover, I am a son of a low-income family from Sichuan Province*[59]*. In the 90s, a son of a low-income family can't find resources to play music. We even have no idea how to have the next meal.*

[59] Sichuan is a landlocked province in remote Southwest China surrounded with mountains.

YC: So, let's talk about the guitar company you worked for. Is it a domestic company or a foreign-invested company?

CHN1-1: Neither. Just a workshop like mine. Basically, it's a hand-made, not machinery-made, workshop in 1992.

YC: So, is it an independent luthier workshop?

CHN1-1: Yes. At that moment, we're just experiencing the period of Chinese Economic Reform, the government's policy supported this kind of private business. And that owner's parents are professors at Central Party School of Chinese Communist Party.

YC: What? How does this owner learn the guitar-making skills? From Whom?

CHN1-1: Come on! Central Party School of Chinese Communist Party, you know. His parents are professors in this kind of school, which means that their son has the privilege to contact information from the outside world. Right? Does it make sense?

YC: Very unique Chinese Character.

CHN1-1: Just like North Korea. Information is not accessible to ordinary people but open to privileged cadres. You know, they have a specific "channel."

In the above conversation, we can learn a unique Chinese character of the guitar-making industry in China, especially during the late 80s and early 90s, the period of Chinese Economic Reform. This character perfectly indicates that we can't clearly understand ordinary people's destiny without correctly commanding the essence of the changing social context. In CHN1-1's story, on the one hand, we can learn how the changing social structure, led by Deng Xiaoping's administration based upon neoliberal principles, emancipated abundant labor forces from rural areas. This Economic Reform directly resulted in mass immigration from rural areas to urban. CHN1-1 was just one of the millions of migrant workers during this period. On the other hand, we can also

learn that few privileged "princelings,"[60] that guitar shop's owner whose parents are teaching at the Central Party School of Chinese Communist Party, play a role in importing new industry and technology from the United States. At this critical moment towards economic reform, both a rural migrant worker and a princeling have to explore what they can do in order to adapt themselves to the dramatic social change. However, we may further question how CHH1-1 may have a chance to know this princeling.

YC: How did you know that son of professors?

CHN1-1: It's related to politics and social relations. One of my relatives had been a drive of Jiang Qing before Jiang lost her political power[61]. So, after Jiang Qing lost her political power, my relative was transferred to Tsinghua University. He worked as a campus security guard there. You know, the rise of Economic Reform means mass personnel restructuring, so many government organizations need a mass of security guards. So, my relative helped recruit guards from his hometown, Sichuan. By the way, at that moment, Beijing began to accept rural migrant workers. That's how we moved to Beijing.

YC: Of, so, you moved here to be a guard, but how did you know that guitar builder? I mean, that son of professors at Central Party School?

CHN1-1: No, actually, I didn't work as a guard. I just moved to Beijing with my relative. But you know, Tsinghua University, of course, has a

[60] Princeling is a negative term to describe the descendants of influential Chinese Communist Party's leaders. In Chinese Society, they are more likely to have a better chance of receiving higher education, going abroad, creating business than ordinary kids whose parents are not Communist party's cadre. In this research, obviously, this guitar shop owner's parents are not leaders on the top of the hierarchy, but he is able to learn how to make guitars in the 80s. The second shop owner's story will be more obvious to highlight the privilege of these princelings.

[61] Jiang Qing, the fourth wife of Mao Zedong, was one of the "Gang of Four" who played a prominent role in Cultural Revolution between 1966 and 1976. However, after the death of Mao, the decline of Cultural Revolution, and the rise of Deng Xiaoping, The Gang of Four, including Jiang Qing, were arrested and were subjected to a live trial on TV in 1981. Finally, four of them were convicted of anti-party activities. Jiang received death penalty but later commuted to life imprisonment. **The decline of the Gang of Four indicates not only the end of Cultural Revolution, but also the rise of Chinese Economic Reform led by Deng Xiaoping in the global context of neoliberalism after the late 70s.**

relationship with Central Party School. That guitar builder told people he needs a labor force for running his shop, and I was interested in this opportunity. "But I have no idea how to make guitars." "No worry, I teach you." This is the beginning of everything. I still remember the brand of that guitar is Moonlight.

Obviously, we can see how a migrant worker from Sichuan has unconsciously climbed up on the first step of the ladder towards the luthier. Through his relative's introduction, CHM1-1 gets a chance to work with that guitar shop owner. This is a mutually beneficial deal to both sides. CHN1-1 has an opportunity to have an interesting job; the guitar shop owner can hire the appropriate labor force. Therefore, CHN1-1's next step is to climb up to the second step: Learn different skills and earn experience from other shops. Very luckily, we moved to another guitar shop owned by a young guy, another princeling whose parent is an administrator at Tsinghua University.

YC: So, did you learn everything in Moonlight?

CHN1-1: No. I went to another shop. The owner of the second shop is a son of an administrator at Tsinghua University. He graduated from high school but unable to pass the college entrance examination. So, his father asked him, "what do you want to do?" "I want to play music," he responded to his father. However, he failed to be a musician. So, his father asked him to be down to earth. "Ok, I want to learn how to make guitars," he responded to his father again. Then, he went to Moonlight and became my colleague.

YC: Moonlight?

CHN1-1: Yes, Moonlight. His job is buffering, but he quitted it half year later. Because he complained, it's too exhausting.

YV: Come on, buffering is not so exhausting…

CHN1-1: After quitting Moonlight, he told his father his decision to open a new shop. His father asked him, "do you know how to make guitars?" "No," he said, "but I can recruit people." In 1994, it was tough to recruit

people to make guitars. So, he asked my relative to help him recruit people. In 1994, In Peking University, Tsinghua University, many custodians, guards, staffs were migrant workers from Sichuan, especially from my hometown and nearby areas. Cool, right? You know, if we want to enter the campus, we even don't show gate guards our ID.

YC: So, you help that guy recruit people to work with him?

CHN1-1: Right. I introduced him to my friends from Sichuan, now working on campus. I asked him once, "how much do you want to invest in your shop?" "Don't worry. I want to build a shop which can make 200 guitars monthly."

YC: wow.

CHN1-1: His father is rich. His father is not only an administrator at Tsinghua University but also an owner of a machinery factory. I have no idea their background. Only one thing I certainly know, his family are somebodies.

CHN1-1: So, his family invested in this shop…

CHN1-1: I helped him recruit people, around 30 guys, from Sichuan, you know. Then we work every day. Actually, during that period, I learned how to make guitars, especially from reading a manual published by Martin and Gibson. You know. That owner definitely has his particular "channel" to purchase that manual from the United States and send it back to China. Then, he asked a professor at Tsinghua University to translate it into Chinese. One day he passed me the translation. "Read it," he said.

YC: He gave me this book, and you do the research work. Right?

CHN1-1: Yes, he sent me to a small room. I never got out of that room except having meals. I lived there for one month.

YC: Besides the book, did he offer you other resources? Such as a real Gibson or Martin guitar?

CHN1-1: He got me two Gibson guitars or something. We disassembled them and researched how they work. This month, I was in that room to draw the plan, design the guitar bracing. That book also offered data and specifications, so we built guitars with the specification. You know, the earliest Dreadnought type guitar in China was made by us.

YC: Dreadnought type?

CHN1-1: The model was called Tombo. The brand name is Red Dragonfly.

CHN1-1's second stage on the ladder towards luthier, similar to luthiers in other countries, focuses on improving skills and knowledge of guitar-making through disassembling guitars and copying the original design. However, we have to keep in mind that the "Chinese Character," princeling's privilege to obtain Gibson and Martin's guitar manual, still plays a role in facilitating this learning process.

CHN1-1's Business Model

CHN1-1 spent only six years reaching the top level of the ladder and became a luthier owning his independent brand and shop. This experience might be the best example to describe the so-called "Chinese Character." However, we have to question why he creates his shop so quickly. CH1-1 is forced to quit Red Dragonfly and creates his shop because he suffered a labor dispute in 1997. Again, the rise of this labor dispute reflects another dimension of "Chinese Character."

CHN1-1: In 95 or 96, we got some troubles in the factory.
YC: What's the trouble?
CHN1-1: That owner was not good at managing the factory. He was an avid party guy. And he liked to receive an interview with the guitar we built.
YC: So, no self-discipline?
CHN1-1: No. In addition, there were more and more competitors in the market. If you didn't care about the quality of your products, you would have big trouble.
YC: So, you decided to quit and create your own shop, right?
CHN1-1: It's worse. I was the factory director.

YC: Did you take the responsibility of quality control?

CHN1-1: No. Just to manage the personnel. By the way, there was another bad thing in the 90s. Do you know? We are not the monthly salary. We are annual salary.

YC: What?

CHN1-1: So, workers were often short of money, even no money to buy cigarettes. Finally, the owner was unable to give workers payroll. So, I was very angry because most workers were migrant workers from Sichuan. They were my men, and I had the responsibility to them. So, I told him my suggestions: either take the obligation to pay people or let other people run the factory. At that time, my thought was to buy his factory. Maybe not buy it; I take the responsibility of management, he remains the owner, but he doesn't take any responsibility. I run the factory. You know, he didn't pay me my salary.

YC: What?

CHN1-1: Like how he treated his workers, he didn't pay me for a year. At the end of that year, 1996, workers finally received a salary, some got 1,000 RMB, some 2,0000, the worst only hundreds. And he paid me 4,000, but 4,000 just my 3-month salary. H owed me a 9-month salary. So, I told him that I would accuse him.

YC: You should.

CHN1-1: One day, I made an appointment with the owner and went to his office with a lawyer. The lawyer said to the owner: "You should pay salary to your workers." "I have no money," he said, "you can sell my guitars for your salary." It doesn't make any sense of taking guitars, you know. Where can I sell those guitars? I don't know any retailers or distributors. Well, but it's better than nothing. So, I took 40 guitars from him.

YC: So, taking guitars for your salary.

CHN1-1: Yes. But part of these 40 guitars belongs to other workers. You know some decide to go back to Sichuan and never come back. They were hurt seriously, so was I. Finally, I asked all instruments stores I knew to help me sell guitars. You know, selling to them directly, or consigned to them.

YC: That's how you know those retailers in Beijing?

CHN1-1: Yes. One year later, in 1997, I began to create my own shop.

YC: How much was the registered capital? Did you have other investors?

CHN1-1: 5,000 RMB, all from my pocket. You know, in 1997, I had my family, so I would not ask my parents to help me. You know you need a lot of tools and materials to create your own shop. By the way, I still remember how I sold my first guitar.

YC: Whom did you sell, and how?

CHN1-1: At that moment, I rent a place as my workshop, a short distance from my housing. One day, I rode my bicycle with the guitar I built. On the road, one guy asked directly what this guitar was. After checking out my guitar, he asked me how much it is. "600 RMB," I said. That's how I sold my first guitar on the road.

YC: So, you didn't charge any deposit. You just made a whole guitar and sold it to a stranger you don't know.

CHN1-1: Yes.

Again, we witness the "China Character" of its Economic Reform in the 90s: labor dispute due to the lack of labor right protection and incredible business opportunity in the rising market. On the one hand, the ridiculous yearly salary and its responding labor dispute reflect the few protections of workers against the infringement of labor rights. On the other hand, more important, we may learn that everything is possible in a rising market. Unlike CHN1-1's counterparts in the US, Japan, and Taiwan who will not begin working until receiving the deposit from their customers, he dared to make a whole guitar without knowing to whom he can sell this guitar. Additionally, the first customer of most guitar builders is their friend, but CHN1-1's first customer is an unknown pedestrian. And this trade happened on the street. Compared to luthiers in other countries, CHN1-1's achievement did not result from craftsmanship and entrepreneurship through personal struggle. In contrast, his destiny is highly correlated

to the great social transformation in China in the late 90s.

But just like HT1-1's suggestion to young luthiers, the importance of dealers, CHN1-1 knows that he can't depend on the one-time trade on the street and instead creates an enduring partnership with instruments store owners who can help him sell guitars to customers. Therefore, he brought his guitars to those shop owners.

CHN1-1: You know, China is different. People are not used to order a guitar and pay the deposit first. Chinese customers like to buy a guitar in stock. But it's trouble for a builder because we have to ask instrument stores or wholesalers to sell our guitars.

YC: So, how did you ask wholesalers or instrument stores to sell your guitars? Were your guitars consigned to them?

CHN1-1: No, I sold guitars to them directly, then they sell guitars to customers.

YC: So, they just bought out your guitars, and did you receive merchandise return?

CHN1-1: No. They just bought out my guitars. "I charge you 500 RMB per guitar," I said to them, "then you sell them to customers." I worked with instruments stores in this way for two years. It's so tired.

From 1998 to 2019, CHN1-1 spent 21 years learning skills, opening his shop, establishing his business networks, and finally becoming an independent luthier in Beijing. Now he hired his young brother to work with him. In addition, he also receives a young apprentice, CHN1-2. From learning to a luthier to teaching apprentices, how does he judge the changing environment of the guitar industry in China? How does he evaluate previous owners, especially the owner who failed to pay him the payroll?

YC: So, now how many people do you hire?

CHN1-1: Now I hire one guy. He is my cousin.

YC: Only two, including you?

CHN1-1: Yes. I also have an apprentice, but he should be excluded; he paid me to learn skills here.

YC: Have you ever contact the owner of Red Dragonfly? That guy owed you a salary.

CHN1-1: No. After that unpleasant labor dispute, we don't contact each other anymore. I heard that he created another furniture factory, but he couldn't earn money, so finally, he was bankrupt again.

YC: How about the owner of Moonlight?

CHN1-1: It also closed. And I heard that the owner of Moonlight remains single.

YC: Both of them are the sons of the Chinese Communist Party's cadre, this is my opinion, but they were willing to create their careers. You know, not like most "princelings" of the Communist Party.

CHN1-1: Come on! They just do it for fun.

YC: Maybe, but at least they tried to do something. You know, many princelings go abroad for studying, but the first thing they do in the US is to buy a car and housing.

CHN1-1: Again, they just do this for fun. Oh, actually, I met the owner of Red Dragonfly once several years later, only one time. He bought me a meal, and he told me that he was very dispirited during the period of the labor dispute. He felt that everyone is climbing up, but he is falling down. "We can neither follow you nor work with you in that factory," I told him, "you know, we are the breadwinner. We have to bring home the bacon." Yes, we are the breadwinner of our family, especially we are migrant workers. You know. If you just come to a big city, like Beijing, you will receive the impact every day. You want to seize any chances for climbing up because we come from a poor area. Those princelings in a big city are different. They do everything just for fun.

YC: So, even though both of you are making guitars. Moonlight's owner, or Red Dragonfly's owner, they do it for fun; but you do it for subsistence.

CHN1-1: Exactly. Why do you move to Beijing? Only one reason: we want to have a better life, not only for myself but for the whole family. Now

Chinese people are rich. But in the 80s, the rural area remained poor. When you're poor, you will be avid for fulfilling your desire. When you're hungry, you want to have a meal. When you don't worry about a meal, you will like to eat meat. If you are not starving, you want to enjoy leisure time, right?

Obviously, in CHN1-1's opinion, there is a clear difference between his previous employer and him. The former built guitars for fun, but he for subsistence, not only for himself but also for his family. At the beginning of Chinese Economic Reform, CHN1-1's experience reflects another dimension of "strive to survive" because no one knows the future of the rising market economy in China. The only thing they can figure out is that the old days based upon the socialist regime are gone. Everyone has to explore their niche for subsistence.

But 20 years later, CHN1-1's observation of Chinese youths and his apprentice, CHN1-2, told him that the ladder towards luthiers based on "Chinese Characters" is declining and replaced by an individualistic value from western society.

YC: Is your kid interested in guitar-making? Will he take over this shop in the future?

CHN1-1: I don't know. But he plays guitars.

YC: You know, some Japanese guitar shop is a family-owned business. A grandfather created it, and now his grandson manages the shop.

CHN1-1: Well, if one day my son is interested in guitar-making, and I am still alive, I will teach him. Otherwise, teaching him is meaningless. The future of the guitar-making industry, I think, will be similar to the Western. People will be encouraged to combine their hobbies with their career choice. Now you have free time, and you will use this time to do something exciting for you, such as to learn ceramic art or to learn cooking. As my apprentice,

CHN1-2, he was s worker at a furniture factory before working with me. Despite his low salary, at least he can earn money. Why does he quit and pay me a tuition fee for learning guitar-making skills? Because this is his favorite, and he has his thought.

YC: How much do you charge him?

CHN1-1: 20,000 RMB a year. I teach him everything so that he can independently make a guitar.

YC: How many people ask you to teach them guitar-making skills?

CHN1-1: Many. Averagely I will receive one request every two months.

YC: What kinds of applicants will you like to receive as your apprentice?

CHN1-1: I will talk with them first to make sure whether they have prior knowledge of using hand tools. I will ask them to show me their essential craft. For example, can you use a chisel? I'm good at discerning who will be a good apprentice and can be a good maker in the future. Furthermore, I will ask their purpose. This question will help me figure out their perseverance. Like CHN1-2, he is pretty smart and versatile. You know, he even writes novels. I don't receive apprentice easily. I have to take the responsibility because I will charge you tuition fees…Many people want to be my apprentice, I will tactfully reject them first. "This work is very dirty, very exhausting, not a hipster's job."

In CHN1-1's observation, learning from disassembling guitars, working for the subsistence of the whole family, fighting against labor dispute, everything related to the struggles in everyday life is gone. The new thought of youths is the combination of a personal hobby and career choice instead. From CHN1-1's perspective, Young artisans will have stronger commitment because they love guitar and are more willing to devote themselves to this industry.

CHN1-1's observation looks reasonable. Nevertheless, maybe we will hear different voices if we give CHN1-2 a chance to tell us his stories.

CHN1-2: A Migrant worker from Rural Area

On June 30, 2019, I interviewed CHN1-2 in the National Museum of Modern Chinese Literature lobby. This museum, located in Chaoyang, a core district of Beijing, is the first cultural institution to research and exhibit modern Chinese literature. As an amateur of contemporary literature, CHN1-2 spent his valuable holiday visiting this museum and attend a lecture.

CHN1-2, born in 1985, moved to Beijing from a rural area of Shandong Province in 2003 when he was 18 years old. "Because I failed to pass the college entrance examination," he said, "so I decided to find a job in Beijing and don't depend on my parents." Very similar to CHN1-1's experience, he met his cousin who moved to Beijing and returned hometown to recruit laborers, so he went to Beijing with his cousin.

After moving to Beijing, CHN1-2's first job was as an interior decoration worker. He was designated to build window frames and woodcarvings. Sometimes he would be asked to build furniture on the construction site. But sooner, he quitted this job and worked in a furniture factory[62].

[62] Despite an irrelevant subtopic, I have to mention that, from 2012 to 2018, CHN1-2 had lived in Picun Village, a marginal area in Beijing full of migrant workers because of its cheap housing rent and low living expense, before he quitted the job in furniture factory. During this period, CHN1-2 actively participated in cultural activities organized by Migrant Worker Home, a non-government organization focusing on the exploration and protection of Beijing migrant workers' labor conditions, living environment, and labor cultures. CHN1-2 was even an editor of a labor journal released by Migrant Worker Home and frequently submitted his novels and poems to that journal. However, in November of 2017, an unexpected fire in Daxing District, an industrial neighborhood of Beijing full of migrant workers (around 120,000 of total 175,000 residents are migrant workers), killed 19 people, which resulted in the notorious policy to kick out so-called "low-end population" from Beijing. Almost all migrant workers living in any corner of Beijing, including Picun Village, are forced to leave Beijing immediately, and those old and poor communities and housings will be demolished. This demolition policy made CHN1-2 decide to quit the job and move to another place. So, CHN1-2 moved to Tongzhou and paid tuition fees to CHN1-1 for learning guitar-making skills.

YC: You said the payroll in the furniture factory was not bad. You worked six days a week and nine hours a day. If plus overtime pay, you can earn 10,000 RMB months, right?

CHN1-2: yes.

YC: Did the factory offer you an accommodation?

CHN1-2: Yes. It offers a dormitory and meals.

YC: Do you have a pension and insurance? You know, "Five Insurances and One Fund."

CHN1-2: Come on, nothing!

YC: So, will all your payroll go to your pocket?

CHN1-2: Yes, all in my pocket.

YC: Can you explain what's your work in the furniture factory?

CHN1-2: We build western furniture, such as sofas, chairs, cabinets, European and American styles.

YC: There are various processes in woodworking, including cutting, shaping, fabricating, painting… Did you know everything or just focus on one part?

CHN1-2: I've done everything except finishing. Because our factory is a small business, it couldn't adopt the assembly line. But it's a small factory, so workers have to know everything.

YC: So, can you independently build furniture?

CHN1-2: Yes, I do.

YC: So, you're supposed to command a lot of previous knowledge before working with CHN1-1. Aren't you?

CHN1-2: I have to tell you the truth. CHN1-1 even knows less than I do in terms of woodworking and tool operations.

CHN1-2's target is very clear-learning the guitar-making theory and then being a guitar maker. In order to be a luthier, he spent money to be CHN1-1's apprentice. In the interview, he mentions several times that he can duplicate a guitar if he is given a

prototype for disassembly and research based on his previous knowledge of woodworks. However, able to make a copy guitar doesn't mean able to command how a guitar works. Like Mr. Suzuki's opinion on why he went abroad to learn guitar-making at Hoshino USA, CHN1-2 also wants to learn the guitar-making theory. That's why CH1-2 decided to work with CHN1-1 with tuition fees. But this 1-year apprenticeship is a very disappointing experience because CHN1-1 refused to teach him and failed to supervise him.

CHN1-2: You know, every day I'm here to do woodworks, very boring. So, sometimes I will intentionally make a tiny mistake.

YC: What do you mean?

CHN1-2: You know, if I don't make mistakes, he will keep ignoring me. So, if I make mistakes, he will correct me. And if he doesn't discover the error, we can wait and see when the customer will come back to complain. But very funny, we don't receive many complaints.

YC: What's the most impressive mistake you made intentionally?

CHN1-2: The wrong angle. For example, when we glue the side on the sound board, we hope that there is a 90-degree angle between the side and the top, right? But actually, it's not the right angle. If you take a ruler and touch it on the side board, you will see an obvious gap. I remember the gap is very big; the length of the gap can reach 2 mm.

YC: Oh, no, it's a very big gap.

CHN1-2: Exactly. But sometimes he didn't discover it.

In this story, we learn the insufficient supervision of an apprentice's work and the spotty industrial management. From CHN1-2's perspective, this poor-quality control is not acceptable. However, consumers can't figure out the defect on their guitars. Moreover, they even have no idea this is an unacceptable mistake.

Since working with CHN1-1 is not a pleasant and educational experience, CHN1-2 very seriously thinks about the possibility of leaving CHN1-1. Just like millions of domestic migrant workers in China, he and his wife left their 8-year-old son to his parents and moved to Beijing for job opportunities. If he wants to leave Beijing, this decision should be based on the premise that he and his wife can find a job in his hometown. If they can't find a job in their hometown, they will have no other choice but keep staying in this metropolitan.

When we talk about CHN1-2's family, I asked him whether his wife would support his decision to quit the furniture factory job and be a guitar maker. He slowly told me the answer with a forced smile: "She is not happy but didn't complain very seriously." "Since I quitted the job, my wife has become the breadwinner for the family. Now she is a babysitter hired by a rich family in downtown Beijing."

As an apprentice at the bottom step of the ladder, CHN1-2 is struggling for an opportunity to move upward. In this upward mobility process, not only does he pay the price, including the tuition fees, the loss of other opportunities to earn money, but also his entire family members have to pay for his life choice.

Summary: What Can We Learn from These Four Different Countries' Guitar Makers?

In the first interview with HT1-1 in 2015, as a first-year Ph.D. student knowing nothing about guitar-making, I asked him a naïve question, "Is there any common feature within guitar makers?" "I don't know. Some people are generous, some people not. Everyone has a different personality. But I guess guitar maker should be curious

how and why an instrument works," HT1-1 insinuated to me very artfully.

The first half of his response challenged my assumption that guitar makers, as a specific occupation, are supposed to have their shared culture, belief, and lifestyle. Depicting the shared culture of a small group through fieldwork is the strength of ethnography with which I collect the empirical data for this dissertation research. If the homogeneity, shared culture, among guitar makers is less significant than their heterogeneity, how can I claim that this is an ethnographical work for a group of people? Can we define guitar makers as real objects, like a community, association, or social class? Since I can seize the character of guitar makers in an isolated area, such in Hippie Town, can Hippie Town's luthiers' experience be used to explain guitar makers in other countries? HT1-1's response repeatedly implies that searching the shared culture among guitar builders may be a useless effort eventually.

However, through ethnographical writing, we can still figure out the structural dilemma almost every guitar maker will face, regardless of age, education, nationality, etc. Almost no exception, if you claim that you're a luthier, an independent guitar maker different from a semiskilled worker in a factory, you're supposed to be an "entire artisan" who can make a guitar from starch to finish independently. It means that you're expected to sell a real product on the market to a real customer who wants to play guitar, rather than selling your labor power, labor time to a capitalist who is not interested in how to play guitar. From this perspective, based upon the value of labor power, we can figure out two common features shared by guitar makers. First, how can a guitar maker search for his/her position in the global map of the craft-oriented guitar industry?

Second, how can he/she climb up along the "ladder towards luthier" from an apprentice on the bottom to an independent luthier on the top? Again, if you stay on the bottom of the ladder, the only thing you can sell is your labor power which a boutique shop owner might be interested in buying it. In contrast, the higher stage you can climb up, the more products you can sell under multiple social relations. You can sell your labor power to a master as a hired employee and receive an independent contract for being a subcontractor. Of course, you can try to sell a guitar built by yourself, if you can find anyone interested in it.

The Spatial Aspect: The Geographical Scale of a Guitar Builder in the Global Industrial Networks

Searching for a position in the global map of the craft-oriented guitar industry also reflects how the geographical scale matters. Just like climbing up alone a ladder in the real world, the higher position we are on the step of the ladder, the farther we can see. If we can climb up on a higher step on the ladder towards luthier, we're supposed to be more deeply engaged in the guitar-making global commodity chains.

The first-generation luthiers in Hippie Town, who have international dealers to help them sell guitars worldwide, are perfect examples to highlight this proposition. In addition, both HG Instruments and Suzuki Guitars also create their global guitar networks. The former has engaged in the global networks since the 70s by making copy guitars and transferred to a small craft-based shop making model guitars for a Taiwanese rock guitarist. The latter, the critical person learning guitar craft in the United States in the late 70s and participating in the recreation of Fender USA in the

80s, not only created his independent shop but also made signature guitar for Steve Vai, one of the most famous heavy metal guitarists, and other guitar and bass players around the world. In the United States and Japan, all these luthiers on the top of the ladder, undoubtedly, are the most globalized artisans whose skills and business services both domestic and international markets. Despite a weaker connection with the global guitar market in Taiwan, we still can see how the geographical scale matters to four of the builders in this study. Both TWE1-1, the first guitar repair mechanic from Singapore, and TWE1-2, the first Taiwanese international student going abroad to learn guitar craft, are the more globalized guitar builders than their "descendants," TWE1-3 and TWE1-4, who are living in a secondary city in Taiwan.

China could be an exception because both CHN1-1 and his apprentice CHN1-2 have a fragile connection with the global networks of the guitar-making industry. However, as an independent luthier, CHN1-1 has frequently participated in the Shanghai Instruments Exhibit, an international instrument trade exhibit, just like his counterparts in the United States and Japan.[63] The more famous independent luthiers you are, the more actively you would like to pay to join the instrumental trade show.

Despite the proposition inferring that the higher your position on the ladder towards luthier, the more globally you're engaged in the industrial networks, we should not overlook that different degrees of globalization in different countries will impact

[63] All there first-generation luthiers in Hippie Town, HT1-1, HT1-2, and HT1-3 definitely participate in NAMM show annually. Mr. Suzuki also frequently goes to NAMM show. Due to the expensive expense (two parts in the booth application fees: space rental- $34.15 per sq. ft, plus membership due- $230 annually), many small luthiers, such as TWE1-3. will try to search business opportunity in Music China, another international instruments trade exhibit in Shanghai China.

guitar builders' globalization experience. Undoubtedly, because to the early engagement in the global commodity networks in the 1970s through multiple pathways, including copying, learning, outsourcing, creating a joint venture, etc., guitar builders in both Japan and the United States are more likely to be closely connected with the global commodity chains than their counterparts in developing countries, such as luthiers in Taiwan and China, despite all of them reaching on the highest position of the ladder.

Another aspect of the geographical scale is the guitar maker's location of production. Besides CHN1-1 and CHN1-2 in Beijing, all my interviewees are living in remote areas, Hippie Town in California, Hamamatsu in Shizuoka Prefecture, Matsumoto in Nagano Prefecture, Kaohsiung Taiwan, far away from the so-called global city networks dominated by those international corporations famous for their powerful influence on the global flow of capital, technology, information, and even politics. Since the lack of statistical data, I will not arbitrarily assert that small luthier's production location can move out of the global cities full of consumers and labor force[64]. Nonetheless, we can surmise that the agglomeration of the craft-oriented guitar industry, such as Hippie Town, Hamamatsu, Matsumoto, is less likely to depend on the traditional advantages of industrial location than mass production manufacturing.

When Piore and Sabel predicted the openings and obstacles for flexible specialization in the United States, they argued that flexible specialization might be

[64] I have to emphasize again that this dissertation is not willing to conclude a shared culture or belief among craft-oriented guitar guilders. Therefore, moving out of the city is just one choice for luthiers to decide their production location. Indeed, we can easily figure out other luthiers and small boutique shops, such as Sadowski and Fodera in New York City, ESP USA

emerging in the US in two ways. One of these two possibilities is "nuclei of small firms are forming, recalling the nineteenth-century industrial districts of flexible workshops" (Piore and Sabel 1984:282). In my research of those craft-oriented guitar makers and their business networks, this prediction seems unable to explain why the locations of these guitar-making networks are not in a traditional industrial district nor connected within so-called global city networks.

First, what the craft-made guitar industry needs is not unskilled workers. Hiring a few omnipotent artisans or apprentices can help an experienced luthier to run a small boutique shop in any place. Moreover, the use of CNC will further reduce the dependence upon the labor force. From the labor force perspective, creating a boutique shop to make craft guitars in a city may be expensive.

Second, the character of the craft-made guitar manufacturing is a little different from other occupations of craft economy, such as bartender, brewer, and even butcher, which can be "gentrified" as a cool job because of their different labor character of the service sector. Unfortunately, the environment of the craft-made guitar industry is full of noise, dust, toxic solvent, and a variety of industrial wastes made every day. "This is my kitchen," said HT1-1, who always introduces the inside of his workshop in this script. HT1-1's correct because a guitar buyer will be happier to talk with a luthier in his showroom and enjoy the beauty of boutique guitars than to walk in the "kitchen" to listen to noise, smell odor solvent, and even hurt by machine.

Third, the rise of Hippie Town, Hamamatsu, and Matsumoto, is related to their specific social networks among instrument builders rather than the advantage of their

location. The making of high-end boutique guitars needs a special labor force. It doesn't mean that luthiers can recruit talented apprentices he needs easier in a city than in a county. In contrast, the more guitar masters have collected in a place, even a small city like Hippie Town, and the more talented apprentices would be willing to move to that town. That's why HT1-1 told me that "taking me off doesn't matter because the networks here will remain." In addition, the president of HG Instruments also told me, "my guitar artisans come from everywhere in Japan." Both of their opinions prove that the existing networks matter to the geographical scale of the craft-made guitar industry.

The Structural Aspect: Guitar Builder's Position on the Ladder towards Luthier

Finally, let's move back to the concept, the ladder towards luthier, and reiterate why this concept can help us highlight a shared hierarchical structure in this industry prepared for all newcomers to follow. Despite their different social environments, chances, and challenges in their various positions on the global map of this industry, all newcomers are still supposed to climb up in this hierarchical structure from an apprentice to a luthier.

The networks in Hippie Town offer us a complicated but comprehensive example to analyze how this hierarchical structure can be extracted from the spatial networking model. Ostensibly, the guitar-making production networks among guitar builders in Hippie Town is a flat web of various guitar markers, including shop owners, independent contractors, hired artisans, inexperienced apprentices, etc. In this web, everyone plays their role in making the whole industry networks function and obtaining

what they need in this community. However, if we observe this networking model from the third-generation builder's perspective, we may figure out a ladder towards the luthier in front of them. From the first day they arrive in Hippie Town, they are striving to climb up along the ladder and hope that they can be an independent luthier one day.

Hamamatsu model and Matsumoto model offer us a different perspective on how the ladder towards luthiers work in Japan. From a copy guitar maker's point of view, the meaning of being an independent luthier is to create something innovative. Unlike their American counterparts who can invent the tradition of their brand based on their classical models, Japanese luthiers have to create their specific vintage and expect this innovative vintage to be a tradition accepted by consumers in the future. Both HG Instruments Company's Talbo Guitars and Mr. Suzuki's "vintage in the future" are the same concept from this perspective.

The networking model among TWE1-1, TWE1-2, TWE1-3, and TWE1-4 based on apprenticeship reflects that the rise of the craft-made guitar industry resulted from immigration and international education luthiery school. Due to the loss of guitar-making tradition[65], the recreation of guitar repair and making industry has to depend on an immigrant, TWE1-1, who imports the craft skills to Taiwan. TWE1-2, TWE1-1's apprentice, plays a critical role in importing systematic craft education to Taiwan after learning craft skills in American luthiery school. TWE1-2's apprenticeship is a private tutorship. Apprentices should pay tuition fees for learning skills from TWE1-2.

[65] I have to emphasize that Taiwan had ever been an important country exporting guitars around the world before 2003 Yamaha decided to close its Kaohsiung factory in 2003. Nonetheless, almost none of Taiwanese luthiers learned skills from old factory workers. In contrast, HG Guitars and Suzuki Guitars are highly related to Japanese traditional guitar factories.

The rise of the craft-oriented guitar industry in China reflects the Chinese Character of its economic reform policy under Deng Xiaoping's administration. On the one hand, the CHN1-1's skill formation is completed through reading the translated technical manual imported by a "princeling" whose parents are Chinese Communist Party's members. On the other hand, his unpleasant labor dispute experience resulted in his resignation and the creation of his shop. These unique experiences in China prove that the effort to construct a shared culture among guitar builders across different nationalities might be unrealistic because this "Chinese Character" almost can't be copied and pasted in a different social context. In addition, CHN1-2's migrant worker's experience also highlights the young guitar maker's predicament that both staying in a big city for learning the craft skills and moving back hometown with his wife are a difficult choice. Finally, we can figure out CHN1-1 and his apprentice's different pathways to learn guitar craft. Not only can CHN1-1 learn skills from a privileged princeling's factory, but he also receives a salary by making guitars. However, CHN1-2, just like TWE1-2's apprentices, has to pay tuition fees to learn the same skills. This disparity authenticates that guitar craft is a unique labor power that can create value on a boutique guitar and a lucrative commodity in education.

Whose Voice Is Muted in Guitar-Making Industry?

In Chapter Four, Fender and Taylor's stories told us that we should understand the rise of the craft-made guitar industry under the global mobility of the guitar-making industry after the 1960s. While facing the challenge from Japanese builders, we can

learn how the regeneration of the craft-made industry gave guitar builders a different way of thinking to increase value on their products. In this chapter, from the perspective of small builders, we learn how independent luthiers strive to survive by selling their labor power directly to consumers on the global guitar market rather than being hired by employers on the local labor market. Their various efforts show us guitar maker's specific globalization experiences in terms of micro and macro dimensions. In the micro aspect, we can see how their career developments, including their craftsmanship and entrepreneurship, are evolved in a networking model in which various employment types reduce the cost of production and increase the value of final products. In the macro aspect, we can extract a ladder-like hierarchical structure from apprentice to luthier. The higher position you reach on the ladder towards luthier, the broader connections in the global guitar industry you're supposed to create.

From Chapter Five to Eight, I figured various actors' different contributions in the guitar-making industry, including players, dealers, apprentices, independent contractors, subcontractors, and of course, luthiers themselves. However, we have to ask whether anyone's contribution is overlooked in this industry. In the next chapter, from the perspective of female manual workers from both mass-production factories and boutique shops, I will try to louden female guitar maker's voices muted by the guitar industry dominated by male makers.

Chapter Nine Gender Inequality in the Craft-made Guitar Industry

Although climbing up on the ladder towards luthier is based on the growth of both craftsmanship and entrepreneurship. Unfortunately, most people, including professional players and guitar collectors, are inclined to only focus on the importance of craftsmanship. Under the circumstance, in this chapter, I will also solely focus on the characters of craftsmanship in terms of labor power and argue whose contribution to the increase of value on a boutique guitar will be overlooked.

The Essence of Craft

At Roberto-Venn, I learned a new idea. I am a luthier, nothing can stop me.

-TWE1-2

In Chapter Five, when TWE1-2 talked about his learning experience at Roberto-Venn, he showed me a strong self-confidence that nothing is impossible if give him a chisel and a hand saw. Many luthiers emphasize the importance of a craft builder's omnipotence, from drawing the guitar plan, prior knowledge of wood, craft skills (including cutting, shaping, sanding, gluing, etc.), a variety of experience to figure out the problems of broken guitar, the ability to solve issues cheaply and correctly, etc. TWE1-2's strong own expectation for himself appropriately highlights the first part of the definition of craft in Chapter One: craft means "a willingness to do good work for the sake of people with a holistic command and dexterity of skill."

However, as a luthier, can he build a guitar without any assistance from others? Herein we don't need to discuss how power machines and CNC remain indispensable

to a craft-made guitar builder who cannot build these machines by himself. In TWE1-2's opinion, these machines can be replaced by handy tools. The only thing we should focus on is how the guitar itself can't be made by a builder independently. Who built these indispensable guitar parts, and under what labor conditions?

For example, when I learn guitar craft at Musicians Institute from 2017 to 2018, I spent six months building an electric bass guitar. In the learning and making process, I created almost everything, from drawing the plan, cutting wood, sanding the body and neck, drilling turning key's holes, wiring the diagram, painting, and finishing, even making the pickguard for my bass, except winding the pickup, which is incorporated by the instructor.

This personal experience makes me understand that "all made by an independent luthier" could be an illusion to conceal another actor's contribution to the making of a guitar. Therefore, in this chapter, by exploring and analyzing pick-winding worker's labor process, we will have a chance to listen to these workers' voices muted by the guitar industry.

How Do Pickups Work? Why Hand-Wound?

On October 20, 2019, I drove to Fullerton, California, to visit a new exhibit, "Building Guitars, Making History: Fender Stories," at Fullerton Museum Center. Unlike other guitar exhibits focusing on the guitar itself, this exhibit's topic focused on workers themselves. Dozens of photos and oral history videos displayed in the hall showed us how Fender and his workers had collectively created this legendary guitar

brand in Fullerton before it was closed in 1985.

One of the most precious oral histories is Abigail Ybarra's interview, in which Ybarra, the most legendary hand-wound pickup coil master, clearly told the audience how she began her career at Fender:

> *I worked for Fender Electric Guitar for 58 years approximately. I started I think it was in August of 1956. Before working at Fender, I had no music experience at all. Back in the day at Fender everything was very casual, very loose. We took of our shoes and walked around barefooted, Guys would take off their shirts. It was very comfortable. My first job and I loved it. When I first started at Fender my first job was working in the machine shop. In the machine shop they had me grinding the frets that go on the necks. I was the only girl in there. It was just men in the machine shop. I did not like it there. I told the supervisor there can you find me someplace else because I don't want to be there. Put me someplace else. So they sent me over to sanding, which was worse. I wasn't sanding for a long time. Shoot, maybe for about four years, I was trained by Pilar Reyes. She was one of the original people with him (Leo Fender). She is the one that sat me down and showed me how to do it. That's where I learned to wind. That's when I first started winding.*

In this interview, Abigail told about how she took a job in a masculine labor environment and was transferred to the winding department. Interestingly, coil-winding seems a female-friendly work because Ybarra's tutor, Pilar Reyes, and Ybarra's apprentice, Josefina Campos, are also famous female coil-winding masters.

Herein I want to briefly introduce how a pickup works and how we make pickups for an electric guitar or bass. Unlike an acoustic guitar making sound by picking or plucking strings that can vibrate the soundboard on a guitar and project a sound wave

coming out from the sound hole of the body, the principle of an electric guitar is based on the function of pickups installed on guitar's solid body. Pickups on electric guitars and basses are electromagnetic devices consisting of magnets wrapped with a coil of thousands of fine insulated copper wire (Figure 22, Figure 23, Figure 24). When players pluck or pick the string and make the vibration, which will disturb the pickup's magnetic flux and result in the generation of an alternating current. If we connect the guitar and an amplifier with a cable, this weak current signal will be transmitted to the amplifier and be boosted by the amplifier and make the voice.

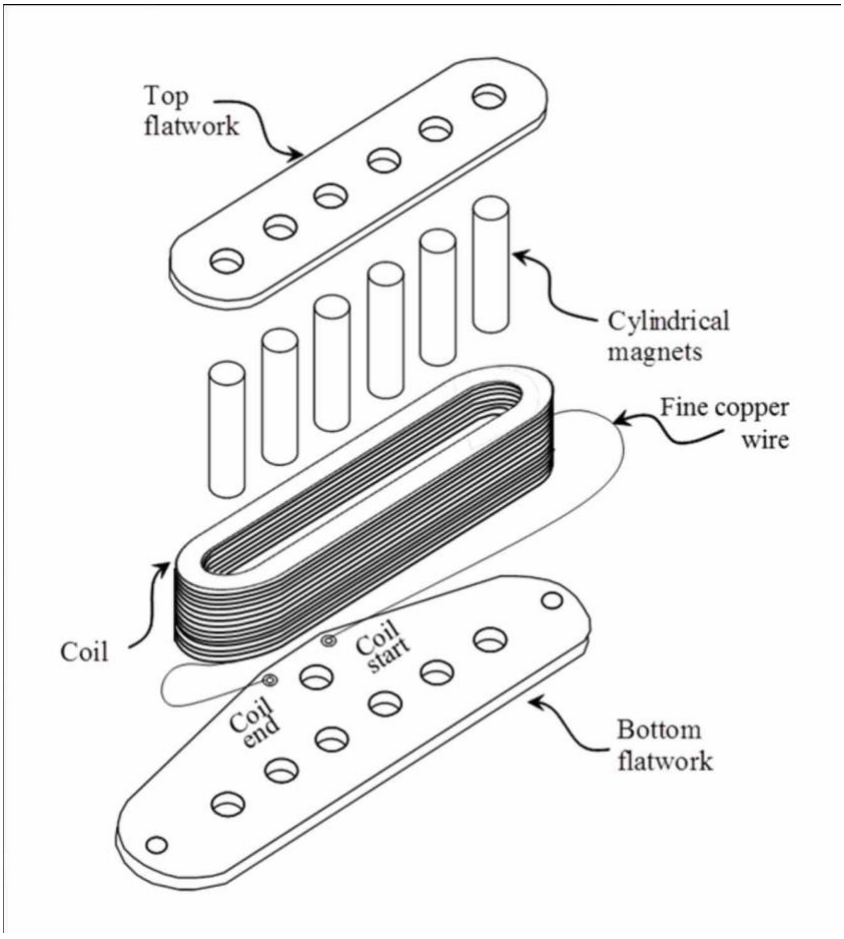


Figure 22 The Architecture of a single-coil pickup



Figure 23 A Fender Stratocaster's single-coil pickup



Figure 24 An Installed Pickup on a Fender Stratocaster and its six strings separately suspended above the pole pieces of the pickup

The most crucial step of making a pickup is how to wind the coils. Like many

industrial products, coil-winding can be done by machinery or hands. And each of them has its characteristics and advantages. For example, machine-wound pickups are very consistent. All pickups made by the same winding machine will not have a massive disparity in their quality. However, if you want to install a unique pickup which can cause different sound, maybe choosing a custom-ordered, hand-wound pickup with different wire gauge, winding count, magnet strength will be a better decision.

There are several steps to wind pickup's coil, including making a bobbin with bottom flatwork, top flatwork, and cylindrical magnets, taping this bobbin on the pickup winding machine (or a "winder," please see Figure 25), operating the winder and winding the bobbin with copper wire. The counter on the surface of the winder can tell the winding worker the number of turns. Every time the coil turns, the number on the counter screen will increase by one. Generally speaking, a regular Stratocaster's single-coil pickup will have around 8,000 turns of the wound coil.



Figure 25 A Pickup Winding Machine

Figure 25 is a pickup winding machine. We can see a spindle directly connected with a powerful motor inside the winder on the right side. In front of the spindle, we can see a bar with two black wheels. After soldering the copper wire on the bottom of the pickup's bobbin and taping it on the spindle, the operator can hold the copper wire with right-hand fingers and turn on the machine. The moving spindle will rotate the pickup and pull the copper wire so that the moving copper wire can wind around the magnets. To wind around the magnets evenly and neatly, the operator should hold the wire and wag the wrist slowly and stably. The operator should also notice that the copper wire must only move between these two black wheels on the bar.

Coil-winding is a complicated and exhausting manual work. A winding worker must wholeheartedly focus on the balance between his hand holding the copper wire and the rotating pickup. You have to observe whether the wire coil certainly covers the magnets evenly, and meanwhile, you have to stare at the counter and make sure that you have already wound enough turns. Lack of experience and wholehearted engagement will result in defective pickups. Additionally, many other factors will lead to poor quality, such as the copper wire's tension, the number of winds on the bobbin, and the winding's evenness.

Hand-wound pickups are very precious and expensive because coil-winding highly requires absolutely wholehearted concentration and patience. Female workers are more likely to be selected for doing this job than male workers. From Pilar Reyes, Abigail Ybarra, and Josefina Campos, these three female winding masters show us how

female workers contribute to the craft-made electric guitar industry. The hand-wound pickups made by Josefina Campos with Fender Custom Shop's certificate authenticity will cost at least 600 USD (figure 26)[66]. Pickups wound by her master, Abigail Ybarra, are 800 USD (Figure 27)[67]. Compared with regular pickups wound by machines only costing around 100USD, these female masters' hand-wound pickups are definitely precious craft-made luxury goods, despite only a part of a boutique guitar.



Figure 26 The pickups wound by Josefina Campos and the certificate authenticity with her signature

[66] Please see: https://reverb.com/item/35224225-fender-josefina-campos-fat-60-s-stratocaster-hand-wound-2020-white

[67] https://reverb.com/item/338177-fender-custom-shop-abigail-ybarra-masterwound-pickups-2001



Figure 27 The pickups wound by Abigail Ybarra and the certificate authenticity with her signature

Now we have to answer a question reflecting a contradictory perspective. If a high-quality pickup means the copper wire can wind around the pickup's bobbin neatly and evenly, undoubtedly, a machine-wound pickup is supposed neater than a hand-wound pickup. If so, why is a hand-wound pickup seen as a luxury masterpiece more expensive and valuable than a machine-wound pickup? Abigail Ybarra's response appropriately answers this question, "doing it with an automatic coil winder, it works really uniformly. And winding by hand, the coil is different. It's not as uniform as a machine[68]."

A Hand-wound pickup's coil should look neat and even but not as uniform as a machine-wound. This contradictory requirement, just like "vintage" discussed in Chapter Four, reflects a mysterious belief which can't be judged by any scientific measure or device. Even if we may use equipment to test the difference between a

[68] Please see: https://www.youtube.com/watch?v=8M2a1yUmvEQ

machine-wound pickup and a hand-wound one, this test will only offer a useless comparison because the result of this test is not the mainstream criterion to judge the value of a guitar and its pickup. In contrast, the value of a boutique guitar, including its pickup and other crucial parts, is determined by the mystified and idolized icons, including those legendary players, masterbuilders, brand creators, and hand-wound female masters.

In this male-dominated craft industry, Abigail Ybarra and Josefina Campos' stories offer us a female artisan's perspective to explore the relationship between guitars and crafts. For example, when Josefina Campos was asked to explain the relationship between her and her hand-wound pickups, "I put all my love, all my dedication in my pickups, all my pickups is my baby. I give you for all my heart[69]," she said. This analogy between childbearing and manufacturing is seldom heard from any male luthier's interview. Herein I don't encourage a gendered division of labor based upon stereotype and prejudice. In contrast, Campos' opinion may help us critically reflect how women's talents and crafts are limited in a specific territory based upon the traditional role they are expected to play in this male-dominated industry.

The review of female coil-winding worker's contribution will also help us question how male luthier's self-confidence, such as TWE1-2's "I am a luthier, nothing can stop me," is based on many unknown people's labor participation. Without these guitar parts made by various anonymous heroes, no one can "independently" build a boutique guitar. However, not all those anonymous laborers, such as those female coil-

[69] Please see: https://www.youtube.com/watch?v=IqQ0wSlwcxc

winding workers, are equally encouraged to be an independent luthier. Compared to TH1-2, the former founder of Alembic Company, who has a chance to be a guitar builder and create his independent shop in Hippie Town, we may question why female workers are less likely to be an independent guitar builder. In contrast, we may observe that female workers tend to focus on a single work for decades until they retire. Through what mechanism this gendered division of labor can be completed may be the next research question evolved from this study: "You can be a female master in the coil-winding area. That's all."

Another question is whether or not female workers only contribute to the small production, craft-based boutique guitar industry. How can female workers in mass production factories play different roles to increase value on mass production guitars? Through the interview of those former female workers at Kaohsiung Yamaha, we may learn how a specific industrial institution, Quality Control Circle (QCC), encourages female workers to improve the efficiency of the assembly line.

Quality Control Circle: An Institutional Innovation to Increase Female Worker's Contribution to the Scientific Management

The establishment of Kaohsiung YAMAHA should be understood under the social and political context in which the Taiwanese government strived to promote the export-led economy. To attract foreign direct investment, the Taiwanese government made various policies, including the establishment of export processing zone, tax-cutting, offering cheap land for industrial usage. Besides, cheap but well-educated labor force in the 1970s is another reason attractive to foreign investors.

Under this social and political environment friendly to foreign investors, Yamaha decided to establish an overseas factory at Kaohsiung Export Processing Zone in 1971. According to the official document, the investment amount of Kaohsiung Yamaha is about five million dollars and hired more than 13,00 workers (but only hiring around 800 workers). Also, its supposed export sales in 1971 would be approximately 1,413,600 US dollars. According to the statistical data, during this period between 1971 and 2003, Kaohsiung Yamaha produced more than four million guitars for selling to more than 70 countries.

Despite the lack of data, my interviewees still proved that Kaohsiung Yamaha's most assemblers were female workers. Most of them graduated from junior high school in southern Taiwan and coming from rural areas. These pieces of information might be used to prove Marx's wisdom that the mass production factories adopting the capitalist mode of production are more likely to hire female workers because female workers are cheaper than male artisans.

Hiring female workers at a mass-production factory, Kaohsiung Yamaha, and even the whole Kaohsiung Export Processing Zone, developed a different management model to extract the surplus-value. In the next section, I will introduce this specific management model, Quality Control Circle (QCC), which makes female workers actively participate in improving production and management efficiency. In other words, QCC plays a role in eliminating the boundary between engineers and assemblers and encouraging female assemblers to improve quality control.

What Is QCC?

Quality Control Circle[70] (QCC) might be one of the most popular industrial management developed in Japan. It means all workers at a factory are divided into several small groups and are organized to voluntarily participate in the discussion for improving the quality of products (James and Elkins 1983; Kawamura 2011; McMillan 1985). We may conclude five structural characteristics of a QCC group: a small group with face to face communication between members; a QCC operates in the same workshop or unit; a QCC performs QC activities; QCCs operate on a voluntary basis; The QCC activity should be a part of company-wide QC activities (Lillrank and Kano 1989:12).

All these five characteristics refer to an assumption that only assemblers at the forefront, despite semi-skilled or unskilled workers, can figure out what happened and how to solve problems. Under QCC's management model, encouraging workers to collectively discuss the issue and deliberate how to solve the problem will be more efficient than the expert or engineer's research. Therefore, it makes sense that workers have to reunite conception and execution because they are expected to offer a new project to improve the production efficiency and reduce the defect rate, rather than only offering their labor power.

[70] It's controversial to assert whether or not QCC is totally disparate from Taylorism. Some scholars argue that QCC is different from Taylorism, because it is based upon "respect for humanity…so that employees can utilize their capabilities fully. This implies a rejection of the Taylorian notion…" (Lillrank and Kano 1989:14). Some argue that "thus quality control circles were not only consistent and continuous with "revised Taylorite" thought, but they ultimately became a concrete-and effective-methodological methodological embodiment of its assumptions and imperatives (Tsutsui 1998:235). Despite the totally different evaluation of QCC, the birth of QCC may prove that Japanese industrial management is, at least, a "revised Taylorism", which may also mean that Japanese industrial management is different from what they have learnt from the West.

The movement of QCC invoked enthusiasm in Japan swiftly. In 1987, there are 264,899 circles registered with more than two million members (Lillrank and Kano 1989:1). This enthusiasm also exported from Japan to other East Asian countries, especially those countries or areas in which Japanese corporations invested directly, such as Taiwan.

The following passage is a conversation between me and Lee, a retired female worker at Kaohsiung Yamaha guitar factory. In this conversation, we can learn how QCC can be operated on the shop floor:

YC: Who will express their opinion more frequently? A director? A foreman? Will assemblers actively reflect your ideas?
Lee: We collectively discuss, everyone.
YC: How many people in a QCC group?
Lee: Around 10 people.
YC: How long will you meet?
Lee: Once a week.
YC: How long a meeting?
Lee: around half-hour.
YC: Only half hour? Would all QCC groups have their meeting at the same time?
Lee: Right, all QCC groups at the same time.
YC: What day is it?
Lee: I remember it's on Friday afternoon.
YC: Before getting off the work?
Lee: Right, around 16:30.
YC: How about the meeting itself? Will you talk more because you're senior and know more about this factory?
Lee: We have a group goal. We will collectively discuss and think about how to improve and how to reduce the defect rate. Generally speaking, we have a proposal.

YC: Do you set up a rotation? For example, this week you report, next week I report.

Lee: No, just collective discussion. By the way, we will buy desserts for the meeting.

YC: Right, some workers told me that this QCC system worked until the close of this factory.

Lee: I remember we have a quota of dessert fee. One person 25 NT dollars (close to 60 cents in the 1980s).

YC: Who pays this money?

Lee: The company.

YC: you know, sometimes extroverts would like to keep on talking, but introverts not. Will you force introverts to talk?

Lee: No. We will not force people, haha. We get along with each other pretty well. If now we retire, we still keep on the friendship.

Obviously, almost all five characteristics of QCC can be observed in Lee's recall. At Kaohsiung Yamaha, workers are divided into small groups. Everyone is expected to participate in the group discussion and contribute their experience for increasing the production quality or reducing the defect rate. Workers, especially female workers, can play a role like an engineer to set up a plan to increase the company's revenue.

From the perspective of scientific management, we will question whether or not workers without industrial management and engineering knowledge are adequate to offer any useful strategy to improve the production quality. If not, QCC will waste not only labor time but also budget. Therefore, we have to listen to a quality control personnel's recall of QCC.

Chen, another retired Kaohsiung Yamaha female worker, had worked as a director in the department of quality control before she retired in 2003. In her perspective, QCC

is absolutely a valid policy for increasing the company's revenue. It can also accurately measure whether or not a worker's suggestion can reduce the defect rate.

YC: Have you ever heard of the concept Quality Control Circle?

Chen: Do you mean QCC?

YC: Yes, QCC.

Chen: Do you know who is the best in terms of QCC at Kaohsiung Yamaha? It's me. My QCC team won the champion prize several times, and even we were invited to visit China.

YC: Won the champion? Do you mean to compete within Kaohsiung Yamaha or compete with other corporations?

Chen: Other companies.

YC: It doesn't make sense. How can a guitar factory compete with other companies, such as a TV factory or textile factory?

Chen: The indicator is the improvement of the yield rate (profitability). How about the rate before improvement and after? If the rise of the yield rate may result from the project you offered, it means that you reduce the defective products or save the labor power. The long-term data will show you which QCC team may effectively improve the yield rate.

YC: I got it. If the indicator is the defect rate, a guitar factory can compete with a TV factory.

Chen: Exactly, different factories may still compete with each other in terms of "rate," despite making different products. By the way, the critical point of QCC is a process of cooperation and the division of labor, rather than individualistic heroism. For example, in my QCC team, we have twelve members, we have to collectively decide what topic related to the difficulty of production we collectively agree. After determining the issue, everyone will be designated to one job, such as A to collect data, B to analyze data.

YC: It seems that the administration of Kaohsiung Export Processing Zone frequently organized the conferences of QCC?

Chen: Right. Kaohsiung Yamaha was always the best. We got a lot of quality certificates.

Chen's recall points out a difference between the QCC model and the scientific management model, despite both based on the extraction of surplus value. Again, scientific management, based on the assumption that workers are supposed to offer labor power and labor time without thinking about enhancing production efficiency, gives way to engagement with workers in production management. In scientific management, the most effective strategy to extract worker's surplus value is to split the whole labor process into various fragments, and everyone is designated to take only one part of the work. From Marx to Braverman, all of their observations on the capitalist manufacturing industry are related to Adam Smith's discussion on the division of labor. From the perspective of division of labor, we may even argue that Michael Burawoy's making-out theory, workers seen as isolated individuals rather than a united class and their rewards depending on individual efficiency rather than collective effort (Burawoy 1979), is also part of this tradition based on division of labor. In the traditional wisdom, including Marx's division of manual and mental labors, or Braverman's separation of conception from execution, and even Burawoy's making-out game, division of labor itself is the purpose means a rationalized mode of production and may facilitate the extraction of surplus value.

Obviously, in Chen's experience, division of labor without cooperation is not enough to enhance the "yield rate", just like her comment, "*the key point of QCC is a process of cooperation and the division of labor, rather than individualistic heroism." Without cooperation, no one can figure out the problem workers are collectively facing, nor solve their collective problem. What the QCC model expects is the cooperation*

among workers for enhancing the "yield rate," and finally can increase the company's revenue. Compared with the atomization of workers on the shop floor under the scientific management and making-out game, we can even surmise that workers under the QCC model will have better chances to learn more than their counterparts under the scientific management model.

How the Working Experience at Yamaha Changed Female Worker's Life

Labor skills can be categorized into general skills and specific skills (Becker 1993). The former means skills not trained for specific jobs and can be used by multiple employers, such as literacy, math, critical thinking. The latter means skills are only useful to particular firms, such as guitar-making skills. Maybe this skill can be transportable to the furniture industry but only limited in a very narrow territory. According to Becker's research, firms are less likely to pay the cost to train their workers the general skills than specific skills because "it is the trainees, not the firms who would bear the cost of general training and profit from the return." (Ibid 1993: 34) In contrast, have a dexterous worker with specific skills. For example, a skillful French Polish painter will be lucrative to the guitar shop so that the employer will cover the budget for training workers particular skills.

However, in Chapter Five, we can see a very cruel fact that boutique shop owners are even less likely to offer specific skill training to their employees. Oppositely, employees have to pay the price to learn guitar craft in a private craft institute. Then they will have a chance to be hired by a shop owner. Having specific skills, despite very basic knowledge, experience, and skills of guitar-making, has become a

prerequisite to be hired.

In this chapter, based on the discussion on QCC, we may see another interesting phenomenon that a mass production factory is willing to cover the cost for strengthening its female workers' general skills. Through the institution of QCC, not only do female workers help Kaohsiung Yamaha enhance the yield rate, but they also have a chance to learn the general skills regarding accounting, management, and problem-oriented analytical ability. All these above skills are not directly related to guitar-making. In contrast, they can be transportable to other industries.

The experience of Lee, a former Kaohsiung Yamaha female worker who only received elementary school education, is the best example to prove how the participation in QCC gave her a chance to learn general skills and how she can use these skills to optimize her labor environment in her next job:

YC: Now you're a cook in a breakfast deli. Do you agree that the skills you learned at Kaohsiung Yamaha can be used in this breakfast deli?

Lee: Yes. Something I learned from Yamaha is beneficial here.

YC: For example? Why can guitar-making skills be used in a breakfast deli?

Lee: Of course, it's useful, such as material management. AT Yamaha, we have a lot of parts, materials, tools for making guitars. If you can set up a reasonable plan to store all these required materials, you can save a lot of time searching for materials, such as a screw, washer, pot, wire, etc.

YC: So, every different stuff has its specific position…

Lee: Yes. Everything will be stored in a drawer with a sticker on which we will write down this stuff's name and size.

YC: So, do you use this material management in the breakfast deli?

Lee: Yes, we make 20 or 30 different breakfast meals, and we have a lot of food ingredients, so we need a reasonable plan to organize the storage

position.

YC: Such as bread, tomato…

Lee: and other miscellaneous stuff, paper bag, straw. So when I was hired, my first job is to put everything in a fixed place and tape a sticker for all stuff.

YC: This is what you learned from Kaohsiung Yamaha?

Lee: Yes, especially from the group discussion on our proposal.

YC: Group proposal? Is it related to QCC?

Lee: Yes, exactly.

When Lee shared with me how her participation in QCC is a useful experience and can be transportable to her new work in a breakfast deli, Chen, another retired Yamaha female worker who is Lee's colleague, told me a rumor:

Chen: You don't know, Lee's perfect performance in this deli attracts the competitor's attention. Another breakfast deli is going to poach her.

YC: Amazing, so will you leave this deli?

Lee: Hahaha, no, because this boss treats me very well.

Compared with Lee, Chen's experience highlights another aspect of QCC's influence on her career development. Chen graduated from High school and had better general skills before working for Yamaha. When she retired from Yamaha, she was a director of the quality control department. After being retired, she becomes an instructor hired by the Labor Affair Bureau of Kaohsiung City Government. Her job is to train disabled people with new labor skills.

YC: You're a retired director of the quality control department at Yamaha, and now you're an instructor to train disable people. Do your working

experience and skills matter to your work now?

Chen: A little bit different. At Yamaha, I train ordinary people; now, my subjects are disabled people, either physical or mental, so we should be more patient, and we have to encourage them.

YC: You're supposed to teach workers at Yamaha how to build guitars. Do you teach the same thing here?

Chen: No, I teach them the correct working attitude. For example, the importance of cleaning the environment.

YC: What does it mean?

Chen: Cleaning the environment is the first important thing in a factory. In addition, Safety is also essential.

YC: What's the attitude at a guitar factory? How can cleaning the environment reflect a correct attitude?

Chen: You know, Kaohsiung Yamaha is a Japanese invested company, every morning, the Japanese manager am standing in from of the entrance of the factory. Our working time starts at 7:30, and he is standing there around 7:20. I am just a director, how can I go to the factory later than the manager? This is a working attitude. You should also take responsibility for your job, including the business, skill, security, and everything. The most important things are the "three elements of production," quality, cost, and time.

YC: Time?

Chen: You have to complete the order on time. This is our "three elements of production." So, I am here to train people's working attitude, such as the importance of politeness, manners, perseverance, etc.

Despite the different career development between Lee and Chen, the former worked in a restaurant, and the latter in a government, we still can figure out their development are influenced by the general skills learned from Yamaha. Lee can smartly use the skill of material management learned from Yamaha, rather than guitar-making skills, to optimize the whole labor process and the environment in a breakfast deli, and

even obtain a poached chance. This is an excellent example of how female workers can learn general skills from a mass production factory. Chen's general skills are more advanced than Lee's because her service objects are people, not materials. In Chen's interview, she proves that she can analyze the difference between guitar workers and disable unemployed and point out a reasonable strategy to execute her training projects, such as the importance of disciplines and manners. If they had not participated in QCC, maybe they could have only learned one or two specific guitar-making skills from Yamaha and unable to reach a quantum leap for their second career development.

Summary: Redefine the Craft from Female Guitar Maker's Perspective

From these female workers' stories, we acknowledge how the craft's traditional definition could fail to cover female's labor experience in the guitar-making industry, especially in the male-dominated craft guitar manufacturing. Through loudening women's voices in this industry, we have to deliberate why the traditional definition of craft, such as the definition in Chapter One, could unconsciously conceal women's contribution. In addition, should we still insist on the difference between mass production workers and boutique shop artisan? If so, can we correctly figure out how different people add their labor value on a guitar? Finally, we have to argue what gender equality means in the guitar-making industry.

Can a Luthier Make Guitars Independently?

Abigail Ybarra and Josefina Campos directly challenge the traditional definition

of craft. We may argue that the definition, such as “a willingness to do good work for the sake of people with a holistic command and dexterity of skill in various social relations of production,” excludes women from the craft-made guitar industry.

First, “holistic command and dexterity of skill” is a specious idea believed by many luthiers, especially male luthiers, because the manufacturing industry in the real world is a highly interdependent human activity in terms of the division of labor. Although luthiers will argue that they are able to build a guitar from scratch to finish independently, this “independent work” only refers to “guitar-making” itself. No one is able to make everything alone. That’s why Abigail Ybarra and Josefina Campos’ hand-wound pickups have become a valuable product on the market. Their outstanding hand-wound skills can be crystallized into part of the value added on a guitar made by Fender Custom Shop’s masterbuilders. From Marxist’s perspective of production's social relations, “holistic command and dexterity of skills” might be an illusion that overlooks other labors’ contribution.

Furthermore, although the rise of the craft-made industry reminds us that production's essence is based on social relations, that’s why we should appreciate those concrete artisans. Ironically, the rise of the craft-made industry will lead to a new luthier fetishism, which will degrade other anonymous but skillful artisans’ collective contributions. A useful strategy to demystify this luthier fetishism is to dissect a guitar and figure out who build these guitar parts. Are they female workers? Are they racial minorities? Are they hired by the factory directly or just an independent contractor? After exploring the various social relations of production, we may understand how

different laborers are designated into different segments and collectively make a guitar. Luthiers, especially male luthiers, should not be the only ones being honored in this production process.

In Chapter Four and Five, we may see how the rise of the craft-made guitar industry is correlated to the mass production industry and its globalization process in the 1970s. Various actors are designated into different segments and play different roles to add value to a guitar. Unexperienced apprentices offer their basic skills to be a sander in a boutique shop. An experienced artisan may become an independent contractor for painting guitars for his master. Dealers play his role invite local guitar players to promote the American-made boutique guitar in Taiwan. “Guitar Heroes” increase value on a guitar using this guitar to create classic riffs and popular songs. We have to keep in mind that Jimi Hendrix’s classic music video in which he was playing “Jonny B. Goode” with a white Fender Stratocaster by plucking the strings with his teeth. This amazing playing skill becomes the best commercial to promote Stratocaster. If we shouldn’t forget how these different segments work together, we should recognize female hand-wound artisans’ efforts in this industry.

1. What’s the Difference between Knowledge and Execution?

The traditional wisdom of labor studies focuses on the investigation of unskilled and semi-skilled workers in mass production factories. From Marx, Braverman, Burawoy, and even Paul Willis, whose classical factory researches shared a common

assumption that workers, as proletarians lacking means of production and knowledge, have to sell their labor time to earn the means of subsistence. Based on this theoretical assumption, work or labor sociologists are inclined to ask questions regarding workers' salary, union organization, and labor environment (Cirera and Lakshman 2017; Villarreal and Yu 2007; Kerrissey 2015).

However, QCC evolved a different management pattern that encourages workers to collectively participate in the factory's management through small group discussion. Additionally, workers are also expected to set up their project for increasing the yield rate because only workers know what happened in the production line and how to solve the problems. This combination of execution, experience, and knowledge can be seen as a practice to strengthen workers' general skills rather than specific skills. And terminates the separation of conception from execution.

Suppose a craft-oriented artisan means a person who can command the holistic knowledge and automatically set up a strategy to complete a job, rather than passively receiving an order and finishing that order. In that case, it seems that we shouldn't assume a difference between a mass production factory worker and a boutique shop artisan. Yamaha's female workers prove that they can use the general skills learned through QCC to solve their problems in a new labor environment. This problem-oriented way of thinking should be seen as another practice of craftsmanship. Just like TWE1-2's self-confidence, "I'm a luthier, nothing can stop me," nothing can stop these female workers. They have already cultivated general skills to solve different problems in their labor environment. The only difference between a female worker and a male

luthier is whether they are continuously making guitars.

What Does Gender Equality Mean in Guitar-Making Industry?

Mr. Suzuki, the founder of Suzuki Guitars, told me that the guitar-making industry is very competitive. Only very few people can stay in this market, let alone female luthiers. He even told me an anecdote to prove his opinion.

> *Once I was invited to be a guest speaker at ESP Guitar Craft Academy, I saw 200 or 300 audience members attend my lecture. "Wow, I can't believe so many people," I said to the instructor at ESP. "Yes, but may only two or three of them will be a guitar builder in the future," the instructor responded to me.*

This dialogue between Mr. Suzuki and the instructor reflects how unfriendly this industry is to young guitar makers. Regardless of gender identity, it's hard to climb up to the top of the ladder from an inexperienced apprentice to an independent luthier. The severe disproportionate gender ratio in the craft-made guitar industry may not be an appropriate indicator to describe the gender inequality in this industry.

Maybe the real problem is an internationalized gendered division of labor in the guitar-making industry. Females in developing countries are supposed to make cheap student guitars at a foreign invested mass production guitar factory. In contrast, in the developed countries, males will have a better chance to make high-end, expensive boutique guitar at a craft-oriented guitar shop. Moreover, this internationalized gendered division of labor is considered a distinction between a deskilled worker and

a craft artisan.

In this chapter, both Abigail Ybarra and Josefina Campos prove that females can also cultivate dexterous skills to make high-end and indispensable guitar parts for those "independent masterbuilders." In addition, Lee and Chen told us those female assemblers at a mass production factory can foster a general skill to analyze problems in the labor process and offer their wisdom to solve the problems if the institution of production allows them to learn general skills. There is no difference between this problem-solving process and a male luthier's labor activity to build a guitar. If we redefine craft as an ability to solve any problems in the guitar-making production, rather than overemphasizing the activity of guitar-making itself, we will have a chance to see how women contribute to the value-adding process in this industry.

The exposure of female workers' contribution to the guitar-making industry shows us that the distinction between a worker and an artisan could merely reflect the specific gender identity behind the gendered division of labor in the guitar-making industry. After exploring how a so-called unskilled assembler can work and think like a luthier, we have to challenge the traditional definition of craftsmanship and explore how this definition may strengthen the male-dominated legitimation. Loudening female's voice in this industry, treating them as a skillful artisan rather than an unskilled assembler, could be the first step to promote gender equality in the guitar-making industry.

Chapter Ten Towards the Sociology of Slowdown

This dissertation's central goal is to explore how the value of a craft-made boutique guitar is added. I have argued how various actors play their roles in increasing value on a craft-made boutique guitar in the global mobility of craft skills. In other words, this value-adding production is a social process rather than an individual activity.

Chapter Four focuses on the role big transnational guitar companies, such as Fender and Gibson, have played in the craft-made guitar industry since the 1970s. I have argued that two strategies, invented tradition and advanced innovation, could increase value on an existing brand under the global context in the 1970s. Both Fender and Taylor's stories prove that reducing production costs under scientific management is not the only way to create value in the manufacturing sector. The return of the craft could be another lucrative production strategy.

From Chapter Five to Chapter Eight, I have discussed the contributions of people who directly participate in the guitar-making process. By analyzing craft-oriented guitar builders' various skill formation and business networking models, I have figured out a hierarchical structure, the ladder towards luthiers. Almost all young guitar builders struggle to reach the final goal-to be an independent luthier by climbing up this ladder. All participants, students, apprentices, pieceworkers, and luthiers, play their role in adding value to a craft-made guitar in this hierarchical structure. In this value-adding process, both craft skill and business networking are equally essential to make a profit. The traditional perspective only focusing on the extraction of surplus-value is

insufficient to explain the rise of craft-made manufacturing and the value of craft-made products.

In Chapter Nine, I have tried to figure out the contribution of people who indirectly participate in the guitar-making process, especially female laborers' contribution. Though introducing female hand-wound pickup workers' craft, we may learn that female winders can be seen as artisans because their work, like luthier, highly depends on the combination of their experience, dexterity, and passion for the work. Exploring female pickup winder's labor process and contribution may inspire us to question why only a "master," a person able to build a guitar from scratch to finish, will be seen as a craftsperson. Additionally, we may learn that so-called semi-skilled guitar workers can work and think like a luthier in a mass-production factory by reading female workers' life stories.

All these three dimensions, the global mobility of the guitar-making industry, the hierarchical structure of small builders, and female laborers' contribution, may give us a new perspective to critically reflect the existing social theories of globalization from the standpoint. In sum, the social research on the craft industry may help create a theory of globalization based on the slowdown rather than the unlimited acceleration.

What's the Value of a Craft Labor? And Why Cultural Perspective Fail to Explain the Value of Craft-Made Guitars

In this dissertation, by analyzing both Fender and Taylor's histories, I have figured out that a craft-made boutique guitar's value could be increased through either inventing the legendary history of the brand or redefining the idea of craft through

unceasing innovations. Labor power remains important but not sufficient enough to explain the creation of value. The making of a product and its value happened in a specific context which should be clarified. Therefore, in Chapter Four, I have tried to describe the historical context in which craft-oriented labor matters to the guitar-making industry's transformation. Again, the primary purpose is not to disprove craft workers' contributions. In contrast, we want to honor all people participating in the guitar-making process and understand how it happened in what social context.

Decontextualizing the rise of the craft-oriented guitar industry in the 70s and overemphasizing the labor's contribution will theoretically lead to a misunderstanding that the rise of the craft-made guitar industry resulted from guitar makers' culture. That's why cultural anthropologists and sociologists devote themselves to exploring the essence of craftwork. Kathryn Dudley's research on guitar makers' artisanal values and Richard Sennett's research on craftsmanship are two typical examples in cultural school. Cultural school scholars support the idea that craft-oriented artisans are different from semi-skilled workers who can only command limited knowledge and production skills because the former can make an entire product independently.

However, overemphasizing craft worker's omnipotence will fail to figure out other people's contributions. Despite an almighty guitar maker, building a craft-made guitar remains a social process in which a luthier needs various collaborators. If we only focus on the role a luthier plays in the guitar-making process, we will overlook other people's contributions, such as apprentices, pieceworkers, dealers, musicians, and part markers.

Second, we have to question whether or not artisans have a shared culture or

identity. In the late 18th century, artisans collectively created their working-class identity through fighting against the machinery-made capitalist mode of production (Thompson 1966). In contrast, artisans nowadays are struggling to develop their independent guitar shop and brand. In other words, what craft-oriented guitar makers want is to run a business rather than forming the collective class consciousness.

Besides, we have to keep in mind that guitar makers' culture could vary due to their different social contexts. If we try to explore guitar makers' culture, maybe it's hard to figure out a shared culture worldwide. For example, the making of Chinese guitar builders' culture should be understood within the economic reform policy in Deng Xiaoping's administration; but the culture of guitar builders in Hippie Town might be related to the counterculture in Bay Area in the 1960s. Again, even if we can point out the cultural elements shared among guitar builders, we need to explain in what context guitar makers can form their culture. Only describing their cultural traits is insufficient to explain the rise of the craft industry in the 80s.

The effort to explore the cultural traits results in the third weakness in cultural perspective- the lack of the analysis focusing on the structural framework among guitar makers. In my research of guitar builder's life experience and career mobility, I have figured out an invisible ladder erecting in front of all young students in the craft-made guitar industry. The higher step a guitar builder climbs up the ladder, the more different and globalized experience this builder will earn in the industry in terms of skill formation, business opportunity, and social networks. Compared to constructing an imagined culture among guitar builders, depicting this hierarchical structure of guitar

builders might be more trenchant to disclose the power relations in the guitar-making industry. In this ladder-like vertical structure, we may more clearly learn how the value is created and through a complicated combination of various labor regimes, such as direct employment, outsourcing, and self-employment.

What's the relationship between skill and craft? And Why Political-Economic Perspectives Fail to Explain the Value of a Craft-Made Commodity

In this research, I have also criticized that the existing political economy perspectives are insufficient to figure out the historical context in which the craft-made manufacturing might regenerate in the 1980s. Very few scholars explore the relationship between the rise of craft production and the internationalization of production in the 1980s, let alone figure out that the global mobility of mass production might result in the rise of craft production.

The relationship between craft production and mass production also highlights the relationship between craft and skill. In this dissertation, I have argued that the rise of the craft-made guitar industry is a reskilling process, which is the reaction of the scientific management depending on deskilled workers.

The relationship between the internationalization of mass production in the 1960s and the rising craft-made guitar industry in the 1980s indicates that the craft production's regeneration resulted from the decline of the deskilled mass production. Craft production is the extension of mass production rather than the opposite. In the definition of craft in Chapter One, craft means the aggregate of those mental and physical capacities existing in the physical form. In other words, craft production

means an omnipotent artisan can build a guitar that will be made by a bunch of deskilled workers at a mass-production factory. If the rise of mass production means how deskilled workers replace dexterous artisans and their apprentices, the regeneration of craft production only means the reskilling process of laborers who can do all works rather than only one simplified and deskilled work. Therefore, we may argue that the rise of craft production is the reaction to the loss of mass production because the vacant position due to the exodus of mass production is replaced by reskilled artisans rather than cheaper deskilled workers.

Pointing out the relationship between craft and skill is helpful to explore how the guitar craft industry may reproduce its labor reserve army. After understanding that craft is just the reflection of a reskilling process, we can command the labor character of craft, which can be measured with rules, calipers, feeler gauges, and other instruments, instead of a mysterious idea, such as "gifted labor" (Dudley 2014:137). As a reskilled labor rather than a gifted talent, everyone can learn craft skills in a luthiery school that offers standardized guitar craft lessons. Therefore, the rise of the luthiery school system may provide apprentices for the industry. In the review of Musicians Institute's history, we may also learn that the guitar craft program is part of the mass production and the global mobility of the guitar industry. Although all luthiery schools emphasize the importance of craftsmanship, we have to point out that this craftsmanship is just the reflection of reskilled labor process rather than any mysterious cultural traits.

The luthiery education in the US is another phenomenon political economy

perspective fails to explain. From the Institutionalist approach, the artisanal industry's necessary labor force should be trained by the apprenticeship system. How could we explain the rising luthier schools based on the principle of commercialized education? In the US, Guitar-making, which had been regarded as a specific skill mass production that factories had to teach their hired workers for free before the 80s, became expensive general skills students must pay to learn in school in the late 90s. In the rising craft-made guitar industry, we have observed that both the global mobility of the guitar industry and the establishment of the craft-made luthiery schools broke the boundaries between the coordinated economic regime (Japan) and the free economic regime (the US).

Compared to the Institutionalist's evolution perspective, flexible specialization is a more convincing concept to explain the rise of the US's craft-made industry. However, each of the two possible ways of flexible specialization, either the flattened organization of hierarchical mass-production corporations or the agglomeration of small firms in an industrial district (Piore and Sabel 1984:282), only partly explains the rise of the craft-made guitar industry in the US in the 1980s. We may use the examples in Chapter Four and Five to explain why they fail to explain the whole story.

In Chapter Four, we have learned that flattening the hierarchical organization is not the reason to cause the rise of the craft-made production strategy. In contrast, it’s the result caused by the rising globalization and advanced technology. In the case of Fender’s transition, the guitar industry's globalization led to two impacts on its production strategies. On the one hand, by using the advantages of flexible production

in Japan and the cheap labor forces in Mexico, Fender continuously moved out its mass-production line to developing countries. On the other hand, through working with Japanese guitar builders, Fender created its craft-made Custom Shop. This development proved that the fundamental factor causing the rise of craft-made production is the power of globalization, rather than the flattened organization of production. In the case of Taylor, the combination of traditional craft skills and advanced technology plays an important role in increasing the value of Taylor's products. Therefore, this combination plays a crucial role in raising its craft-made production strategy. In other words, craftsmanship is not the only reason to cause the rise of flexible specialization. The adoption of advanced technology (such as the adoption of CNC) and the continuous innovation (such as the innovation of NT Neck and the new Expression System) could help evolve the craft-made production and flexible specialization.

The stories of small boutique guitar shops and independent luthiers have proved that these small firms' developments do not depend on the traditional industrial district, except the Japanese guitar builders in Hamamatsu and Nagano. In Hamamatsu and Nagano, traditional industrial district and manufacturing sectors play an essential role in driving small guitar shops. However, in the case of Hippie Town, we don't have any evidence to prove that the agglomeration of small firms in this small city is relevant to its traditional industrial district. In contrast, the beginning of the craft-made guitar industry resulted from the aggregation of amateur makers who didn't earn their living by making and selling guitars. As HT1-1 moved to Hippie Town and learned guitar-

making skills from these amateur builders, more and more guitar makers began to run a business in Hippie Town. Finally, a professionalized networking web of all different guitar builders, including young graduates, hired apprentices, pieceworkers, and independent luthiers, has gradually evolved.

In Taiwan and China, nor is the guitar builders' agglomeration relevant to traditional industry district. In contrast, we have observed that guitar makers are more likely to move to other cities to run a business. None of these craft-oriented builders have learned guitar crafts from traditional mass-production factories in terms of the skill formation process. Therefore, we can disprove that the rise of small firms is related to the traditional industrial district. Second, like the case of Hippie Town, the development of the craft-made guitar industry in both Taiwan and China is based on a craft-driven model, which means young makers will move to a place where their favorite master builders are working because it means that they will have a chance to work with their favorite makers in order to learn their skills or create the connection with them. In this study, it's not so much that the traditional industrial district created the craft-oriented industry. In contrast, the rise of crafts laborers created a new industrial district in a specific location.

The above analysis focusing on craft-driven mobility may highlight the diverse and specific context where guitar makers can collectively create their business and labor networking model. The establishment of Hippie Town's guitar industry is a compound networking model, including Bay Area's counterculture, the local music scene, the heritage of those legendary amateur builders, and the commercialization of

this industry. In Japan, both the Hamamatsu model and the Nagano model reflect a historical context in which big instrumental corporations, illegal copyists, and outsourcing networks matter to the rise of small firms. In Taiwan, the global mobility of craft skills through immigration and international education of luthiery school plays a significant role in hastening the growth of small guitar makers in the local market. In China, undoubtedly, the Chinese economic reform policy is the most influential factor causing the dramatic growth of manufacturing sectors in the 80s, including the rise of guitar luthiers.

Therefore, through exploring these various experiences of different guitar makers in other countries, I develop a concept, craft-driven commodity chains, to explain their different globalization pathways from those transnational corporations' experiences. In this research, two elements drive the craft-based commodity chains: first, the characters of craft's labor; second, this product's cultural values.

First, in terms of craft's labor character, craft means the holistic command of all required skills for making a guitar by one craftsperson independently, rather than the collaboration with other skilled laborers. In other words, the value of a craft-made guitar is made by one independent artisan, or an independent luthier with his/her teams, instead of extracting the surplus value from a mass of hired laborers. Despite the low productivity in their small boutique shops, a craft-made guitar's price is higher than a guitar made in a mass-production factory with higher productivity.

This circumstance in the craft-made industry, the less effective the productivity is, the more expensive its product will be, reflects the second element of the craft-driven

commodity chains that the value of a craft-made guitar should be related to specific cultural traits, such as tradition, taste, or "vintage." The tradition in the craft-made industry doesn't mean an esoteric skill only known by few chosen artisans. In contrast, it can be an invented, artificial creation, or a high-tech innovation. In Chapter Four, we have learned that the guitar industry's cultural value, such as tradition, vintage, is merely a vague idea and can't be clarified. Therefore, creating a convincing discourse to persuade consumers to buy it becomes another critical element to increase its value. In order to reach this goal, both adroit guitar maker's labor participation in the commodity chains and other supporters, such as guitar players or dealers, play an important role in increasing the value of a guitar. In the following paragraphs, we will see how these people who don't participate in the production process remain important participants in the craft-driven commodity chains.

Who Participates in the Craft-Driven Commodity Chains?

All people who participate in the craft-driven commodity chains and contribute to the value-adding process can be divided into two categories: direct makers and indirect supporters. Like a rock band, guitarists cannot independently play music on the stage. They still need supporting actors, such as bassists and drummers.

In Chapter Five, I have figured out four different guitar makers in the craft-made industry: students, hired apprentices, pieceworkers, and independent luthiers. Each plays their roles in the craft-driven commodity chains and collectively constructs a hierarchical structure- the ladder towards luthiers.

Students are at the bottom of this ladder as the so-called reserve army. Worse

than Marx's original description of the reserve army, which means the growing population superfluous to capital's average requirement (Marx 1976:782), students in the new craft-made guitar industry have to pay expensive tuition fees to be voluntary reserve army. Therefore, the birth of the luthiery schools in the late 90s highlights two dimensions in this industry. On the one hand, it trains useful craft laborers for independent luthiers; on the other hand, it makes the guitar craft an educational commodity. That's why being a student in luthiery school is worse than the so-called reserve army because the former need to pay tuition fees for being an adequate and employable reserve army.

After graduating from luthiery school, students will try to put themselves on the labor market. If they can find a job in a boutique guitar shop, they will be a hired apprentice in the guitar-making industry. There is a significant difference between a contemporary apprentice and a traditional apprentice. The former is still part of the market economy, but the latter is regulated by the conventional guild association. Using this term, apprentice, in this study, however, can illuminate the dimension of education in the modern guitar-making industry.

After learning various skills, hired apprentices will continue moving upwards by receiving outsourcing contracts or repair cases. For example, they may receive painting cases from other luthiers or repair cases from local musicians. As a pieceworker, learning a new skill or gaining unique working experience from their master is not the most important lesson. In contrast, through receiving new repair cases or outsourcing contracts, learning how to run a business with different people could be a more

educational goal for their career development in the future.

Being an independent luthier and creating a guitar shop is the dream of many young makers. However, establishing an independent shop or brand implies that this guitar maker has to face all challenges on the market. They have to think about many questions relevant to management and business, rather than only focusing on the craft itself. Do we need to hire people? Do you need to work with a guitar player? Should we register a booth at NAMM Show next year? What's the benefit of participating in the NAMM Show? All these questions are almost irrelevant to craftsmanship. Instead, they are related to entrepreneurship, which has never been taught by anyone before. All independent guitar makers have to find their answers for creating their unique profit model.

This hierarchical structure, ladder towards luthiers, only illustrates the contribution of people who directly participate in guitar-making production. In this study, I also discuss how people who do not make boutique guitars directly but remain part of this industry's commodity chains. In Chapter Four and Chapter Five, we have already seen the contribution of guitar players, endorsers, co-designers, dealers, CNC makers, and even partner's wife who designs the kids' music curriculum. In Chapter Six, we have also learned the contribution of guitar part makers, such as the female artisans who are good at pickup coil-winding handicraft. Without these people's participation, these "independent" luthiers can't make guitars individually, much less increasing value on these guitars.

Endorsers, especially those famous and popular guitar heroes, play an essential

role in increasing a guitar's value. We must always keep in mind that the Fender Stratocaster had been played by Eric Clapton, was sold for $959,500 in 2004, and Bob Dylan's Stratocaster, played by him at the 1965 Newport Folk Festival, was sold for $964,000 in 2013. These two examples illuminate the fact that the value of a guitar is made by the user of this instrument rather than by its maker. Undoubtedly, both Eric Clapton and Bob Dylan's Stratocasters were made by unknown semi-skilled workers at Fender's factory in Fullerton, but who cares? In Chapter Four, especially in the timeline of both Fender and Taylor, we have observed that most new guitar models released on the market will be endorsed by famous guitar players invited by these two guitar manufacturing companies. Herein I'm not disproving that labor doesn't matter to the contribution of value-adding on a product. Nevertheless, we have to figure out that making guitars is a complicated social process in which both guitar makers and other supporting people collectively participate in and contribute their efforts to this high-end product. Only focusing on the guitar maker's contribution will not be helpful to correctly understand how other people also create value in the industry.

Besides guitar players and guitar endorsers, the dealer's role in the craft-made guitar commodity chains is to facilitate the transactions between guitar makers and customers. In Chapter Five, we have already seen how HT1-1 highly appreciates his dealer's contribution. As a mediator between him and his Taiwanese customers, not only does his dealer facilitate the communication between him and his local customers, but he also promotes his brand by preparing and organizing many commercials. In the craft-made guitar commodity chains, we may see a global division of labor between

HT1-1 and his dealer in Taiwan: the former makes the value of a boutique guitar in Hippie Town; the latter promotes its value around the world. In this collaboration, we may see that the production has been concentrated in a specific location, not dispersed worldwide. Additionally, the promotion varies in terms of the need in different local markets.

The third supporting role is guitar part makers, especially those female workers undervalued in the guitar-making industry, regardless of craft-made or mass-production. In Chapter Six, we have seen the contribution from female artisans whose hand-wound pickups are also part of the legendary stories in the craft-made guitar industry. In fact, pickup is just one of the assembled parts on a guitar. Except pickup, a guitar maker needs other parts to make guitars, including tuning keys, bridges, strings, frets, pots, and other parts made by these unknown people who don't participate in the guitar-making process directly. Therefore, these female hand-wound pickup makers can represent all unknown people whose contributions are concealed by the luthier's signature.

The return of the craft-oriented labors may help awaken a deeper understanding of how a real working artisan creates a product's value and demystifies commodity fetishism which conceals the labor's contribution within the capitalist regime. However, we have to keep our eyes peeled for a possible risk that the return of the craft may become a new fetishism to overvalue one specific luthier's contribution and fail to honor all other laborers' participation. Therefore, we also need to question the traditional definition of craft critically because "holistic command of all required skills"

is not sufficient to understand that semi-skilled labor's work, such as pickup coil-winding, may have its required crafts. Besides, if "holistic command of all required skills" can be seen as a basic definition of craft, theoretically, the Japanese industrial management model, Quality Control Circle (QCC), which emphasizes the combination of production and quality control, may be a useful strategy to encourage semi-skilled assemblers to work like a luthier, because all semi-skilled workers are encouraged to ask how to improve the quality control, how to improve the production efficiency, and how to reduce the cost of production. Only luthiers in a craft-made shop, or engineers in a mass-production factory, are supposed to think these questions. However, if we change the industrial management policy and encourage semi-skilled workers to engage in quality control works, we can see that these semi-skilled workers can be skilled and multifunctional craft laborers. What's holding them back is not a lack of capability but a dearth of an appropriate mechanism to encourage them to engage in the craftwork.

The Epilogue: Towards the Sociology of Slowdown

In the final part of this chapter, I will take a look at the theoretical meanings in this research, especially in the aspect of slowdown rather than acceleration.

Sociologists are accustomed to dealing with globalization issues with the theoretical perspective based on acceleration, regardless of capital, skill, or information. Globalization implies a supranational system in which all different areas and locations are finally integrated into it. All these popular concepts, such as David Harvey's time-

space compression, Manuel Castells' timeless time and space of flow, Saskia Sassen's global city, Garry Gereffi's global commodity chains, are created to describe how this supranational system may speed up the capital accumulation, the annihilation of the significant difference by time, the flow of information and capital among big cities, and the international dispersion of production. These concepts share a similar assumption that globalization means a social process of unlimited acceleration.

However, the rise of the craft-made industry in the global epoch, or the craft-driven commodity chain, shows a different globalization experience based on the slowdown. In this research, we have seen how these craft-oriented builders intentionally slow down their production. A Taiwanese luthier may spend almost ten years building a guitar for his customer. A boutique shop in Hippie Town reduces its productivity from 700 guitars a year to 400 guitars a year. An illegal copyist has been transformed from a 400-worker factory into a 20-maker craft shop. Despite slowdown and low productivity, they remain part of the global economy.

The sociology of slowdown may illuminate many aspects unexplained in the sociology of acceleration. The first lesson we can learn from the sociology of slowdown is how craftspeople can live their life differently. Unlike the sociology of acceleration focusing on capital, information, the sociology of slowdown helps see the connection between globalization and people's various experiences, including apprentices, pieceworkers, luthiers, female workers, and dealers. However, many unanswered questions remain. What's the relationship between the fast commodity chains and the slow commodity chains? We don't see the traditional union can play any role in the

slow commodity chains. Does it mean the decline of the labor union? Besides, how about the nation-state? Does commercialized craft education replace the role of traditional apprenticeship? All these questions can't be answered in this initial study focusing on one craft-oriented industry. We need various empirical studies to construct the theoretical paradigm of slow sociology in the future.

Most people are forced to engage in this unceasingly accelerating global networking model. In the social theory based on the acceleration, this global society doesn't mean anything different from the industrial society depicted by Charlie Chaplin in the classical factory scene of his movie "Modern Times." However, in this dissertation research, I have tried to show a slow model, in which people slowly make guitars in remote areas (Hippie Town, Hamamatsu, Nagano, Kaohsiung) far away from the frameworks of global cities, just like a banana slug crawling on the ground.

We are slow, but being slow doesn't mean being excluded from globalization. We are still part of this global society. Maybe this is the last thing I want to say in this research.

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Appendix I Fender's Timeline

year	People	Models	Notes/Miscellany
1950	Leo Fender Endorser: Jimmy Bryant	Broadcaster	Original name: Fender Esquire Everything was geared to easy production. Jimmy Bryant is the first Fender guitar player.
1951		Telecaster (Tele) Precision Bass (p-bass)	Broadcaster renamed as Telecaster. October, P-Bass released. The first fretted electric bass.
1954	Designer: Leo Fender Co-designer: Freddie Tavares Musician: Bill Carson	Stratocaster (Strat)	The first 3 single-coil pickups electric guitar, w/ new tremolo system, Fender's constant consideration of musicians' requirements and his application of a mass-production solution. (Bacon, 2010:14) Bill Carson, the lead guitarist for Hank Thompson, told Freddie Tavares that he wants a guitar with contoured body and six separate bridge saddles.
1955	Forrest White Don Randall Freddie Tavares		Leo Fender's team in 1955: Forrest White jointed Fender's team as an industrial management engineer Don Randall as sales Freddie Tavares as RD for amps and guitars
1956		Duo-Sonic Musicmaster (Both are schoolroom guitars)	Schoolroom guitars: for would-be players, starters Prices: Strat (274.5); Tele ($199.5); Esquire ($164.5); Duo-Sonic ($149.5); Musicmaster

			($119.5)
1957	Endorser: Bill Black (Elvis Presley's bassist)	P-bass	Bill Black, using p-bass to play rock'n'roll.
1958	Jazz player: Roy Lanham	Jazzmaster	Designed for jazz players who largely preferred Gibson's hollowbody electric guitars.
1959		-Sunburst Telecaster Custom -Esquire Custom	Both guitars have sunburst-finish body with bound edges
1960	Endorsers: Ventures Bobby Seen Du Pont(for new paint supplier)	-New Fender -JazzBass	1.MNarrow string spacing at the nut, giving the neck a distinctly tapered feel 2.pickups->wider tone
1961	Endorsers: Jack Bruce	V1	V1-> 6-string guitar, w/o longer neck, turned an octave lower than a regular guitar. Responding to another competitor, e.g. Danelectro, for the market of studio musicians.
1962	Endorsers: Steve Cropper Carl Wilson	Jaguar	Jaguar: off-set waist body, separate bridge, vibrato unit. 24" scale length is similar to Gibson's scale (24 3/4")
1963	Roger Rossmeisl(designer)	Flat-top acoustic guitar Shenandoah Villager 12-strings Malibu Newporter	All those acoustic guitars are not popular.

		Palamino Redondo	
1964		Mustang	Low-end guitar ($159.50) Slab body
1965	CBS Leo Fender	Electric XII Bass V	Fender was sold to CBS in January 1965 around $13 million. Both electric XII and Bass V are short-lived.
1966	Designer: Roger Rossmeisl Endorser: Jimi hendrix	Coronado XII (Roger mustag Bassdesigned)	The first electric hollowbody design at Fender. Jimi Hendrix first time used Stratocaster to play in a gig in Greenwich Village, New York.
1967	Engineer: Forrest white Endorsers: George Harrison John Lennon Paul McCartney	Bronco	Another student guitar, $ 149.50 Forrest White resigned in this year. George Harrison, John Lennon, Paul McCartney used Fender guitar for studio.
1968	Designer: Roger Rossmeisl	Paiseley Red Telecaster Blue Flower Montego II	Both Paiseley and Blue Flower are telecaster style. Montego II is a hollowbody electric guitar. Jimi Hendrix played a Stratocaster in Miami Pop.
1969	Leo Fender Don Randall	The Swinger (Musiclander) Custom (Maverick)	Both Leo Fender and Don Randall left CBS Fender Both swinger and Custom are made with from other guitar's useless parts, both are short-lived.

			CBS's policy: wringing every drop of potential income from unused factory stock. Dale Hyatt: "I think Jimi Hendrix caused more Stratocasters to be sold than all the Fender salesmen put together."
1970	Endorsers: Rick Danko George Harrison Eric Clapton	Fretless version of the P-bass Musicmaster Bass (fretless)	Rick is the first bass player of fretless bass guitar. George Harrison played rosewood Tele Eric Clapton played Strat The Beatles used Fender's j-bass, VI six-string bass, rosewood Tele to record Let It Be. CBS's policy: little innovation, instead, settling on old designs and allow those to provide the major income.
1971	Endorsers: Clarence White Eddie Hazel Jimmy Page Led Zeppelin	Thinline version of Tele New version of Strat	1. Thinlin with two humbuckers for challenging Gibson's market 2. Primary changes to the Strat: adjustment point for the truss rod from body to headstock; neck/body joint screws from 4 to 3 3. "Other problems due to increased production and sloppy quality control has colored the reputation of some of these 1970 Strats" (Bacon, 2010:52)
1972	Endorsers: Rory Gallagher	Telecaster Bass	Tele bass with one humbucker, maple neck, slim headstock, pickguard shape. Control panel

1973	Seth Lover (pickup designer)	Telecaster Deluxe	1. Fender hired Seth Lover for designing new humbucker to compete with Gibson 2. 1972 is a record year for Fender with unit production and dollar sales. 3. The increase in instruments leaving the factory inevitably affected quality 4. Players begun to play old guitars—"vintage"
1974	Endorsers: Larry Graham	The white jazz bass	1. Stop designing and making new guitars with humbuckers because the market didn't accept them. 2. Keep on its mass production policy and built greater quantity of instruments. 3. Workers stopped penciling and later rubber-stamped dates on the body-end of necks.
1975	Endorsers: Ivor Arbiter Jon Douglas Bruce Springsteen	The Rhinestone Stratocaster phototype	1. Rhinestone Strat w/o sculpted body 2. Variety of shades 3. Musicmaster guitar and jazz bass adopted new designs: tilt-neck system, "bullet" truss-rod adjuster at the headstock, three-bolt neck fixing
1976	Designer: Gene Fields Endorsers: Jeff Beck Jaco Pastorius	Gene Fields designed a hollowbody Stratocaster Jeff Beck went back to use Strat	Fender changed a new serial-numbering system Hollowbody strats still failed to excite players.

			Leo Fender created Music Man.
1977		The Mustang Bass in Antigua Antigua-finish Strat	Lodging the 3-way switch between neck and middle pickup gave those two pickup combined and similarly for middle and bridge pickup, which can make “hollow” and “honky” sound. Stratocaster’s 3-way switch was changed to a 5-way unit due to players’ modification.
1978		No new model	The rise of new genres of music, such as disco, funk, and soul, resulted in the transformation of ruck, such as the rise of punk, jazz rock, heavy rock, and country rock The rise of synthesizer
1979	Designer: Gregg Wilson	New pair of “student guitars”: Lead I and Lead II 25th anniversary of the Strat	1. The first anniversary model 2. Maple neck 3. Body and truss-rod adjustment 4. Water-based paint Lead I and II: 1. double cutaway body 2. CHEAP ($399)
1980	Designer: Gregg Wilson Suppliers: Larry DiMarzio Mighty Mite	Strat	In `1980, the first time Fender used the abbreviation “Strat” officially on the Stratocaster designed by Gregg Wilson. This new designed Strat used new circuitry and fashionable, heavy-duty brass hardware.

	Leo Fender		Mighty Mite is the designer of Seymour Duncan's pickups In 1980, Leo Fender began making bass with active preamp, StingRay
1981	Designer: John Page Personnel change: Bill Schultz Dan Smith	Lead III The Bonco and Musicmaster drooped in 1980	Lead III is a next generation of budget-price solid body guitar. CBS President John McLaren invited Bill Schultz (from YAMAHA) to be new president of Fender, Dan Smith as new director of marketing. *The first time Fender shifted manufacturing outside the US for eliminating tooling costs to Korea.
1982	Japanese distributors: Kanda Shokai（神田商会） Yamano（山野楽器） Japanese Manufacturer: Fujigen (Known by its brand: Ibanez)	Vintage Guitars in the 50s and 60s reissued in 82	The rising rate of USD in the early 80s resulted in the cooperation between Fender and Japanese builders. The establishment of Fender Japan. The lists of "Vintage guitars": Maple-neck '57 Stratocaster; '57 P-bass, a rosewood-fingerboard '62 Strat, ,62 p-bass, '62 jazz bass, '52 Telecaster Made in Fender Japan only sold in domestic Japanese market and some European markets. Squier, Fender's budget brand, was born in

			this year.
1983		Squier brand Elite Strat Elite Tele Elite P-bass	Squier brand made in Japan Musicians would buy Fener guitars with "made in Japan" on them. Two backgrounds: 1.The quality of "made in Japan" is good 2.The US dollar is too strong.
1984	Endorsers: Los Lobos Tex-Mex Johhny Marr	Flame Esprite (semi-soliddouoble-cutaway) D'Aquisto (hollowbody)	Flame, Esprite, and D'Aquisto the first Fender Japan products with the Fender headstock logo, rather than Sq.ier. D'Aquisto is the first "set"glued in necks, rather than bolt-on method.
1985	Bill Schultz Designer: John Page Endorsers: Edge with U2 Yngwie Malmsteen	Performer	CBS sold Fender out to Bill Schultz and his team, but only the name and inventory of products and machines without the factor in Fullerton, CA. Layoff: 800 people in early 1984 to over 100 later. John Page designed the Performer. All guitars made in Fender Japan until the

			mid 1986. 80% of Fender USA sold from late 1984 to mid-1986 are made in Japan. All guitars in Fender's 1985 catalog are made in Japan.
1986	Dan Smith (as electric guitar production manager) Endorsers: Jerry Donahue Chrissie Hynde	The American Standard Stratocaster (One of the most successful models for the revitalized Fender company later)	The establishment of a new factory in Corona, CA. at first, only able to made 5 guitars per day. Strategy: re-establish the US side of Fender's production with a good, basic, Strat, Tele, P-bass, and Jazz bass. Production policy: Simplicity makes things work. The American Standard Stratocaster: 1.A updated 22-fret neck 2.Slightly flatter fingerboard 3.revised vibrato unit.
1987	Craft masters: John Page John Stevens Customers of Custom Shop: Chet Atkins Lou Reed Eric Johnson		The establishment of Fender Custom Shop in Corona, CA. Characteristics of Custom Shop's guitars: 1.One-offs 2.limited edition 3.a general line of catalog models years later. The establishment of a new factory in Ensenada, Mexico
1988	Endorsers:	The 40th year anniversary	Eric Clapton is the first musician honored

	Eric Clapton Yngwie Malmsteen Enginner: George Blanda Michael Steven	Telecaster The Eric Clapton Stratocaster The Yngwie Malmsteen Stratocaster The American Standard Telecaster The American Standard P-bass The American Standard Telecaster Strat XII	with a signature edition Fender Production model The specifications of Eric Clapton's signature model: distinct V-shape neck (1930s Martin acoustic guitar style), Lace Sensor pickups, midrange-boosting active circuit. Tge Eric Clapton Signature was made by George Blanda and Michael Steven; The Yngwie Malmsteen signatur by George Blanda. The American Standard Telecaster: with a updated 22-fret neck. Strat XII is made by Fender Japan.
1989	Endorsers: Jeff Becker	HM Model Supersrat Heartfield (made by Fujigen, Japan) The double-neck Strat	Specifications of HM and Heartfield: 1.humbucker pickups 2.floyd rose bridge 3. "pointed" headstock. Target market: heavy metal players Competitors: Jackson, Washburn, Ibanez, Kramer The double-neck Strat: Custom Shop's original role to making custom guitars.
1990	Endorsers:	Danny Gatton's signature Tele	Danny Gatton model's specifications:

	Danny Gatton Janes Burton	James Burton's model (Tele) Jazz Plus V bass	1. Two blade pickups 2. A modified bridge 3. Body decoration James Burton's specifications: 1.three Strat-layout single-coils 2.finished in paisley pattern Jazz Plus V: 1. 5-string bass 2. active circuit
1991	Endorsers: Robert Cray Jeff Beck	Prodigy II	Prodigy II's specifications: 1.Floyd Rose bridge (For metal players) 2.SSH pickups The first guitar made in Fender, Mexico. In the 90s, factories in Korea and China were established. Fender acquired exclusive rights to Floyd Rose products in 1991
1992	Endorsers: Stevie-Ray Vaughan Jerry Donahue Stu Hamm	Stevie-Ray Vaughan Signature Jeff Donahue's Tele Stu Hamm's signature bass Fender's Floyd Rose Classic Stratocaster	The Creation of Fender Korea

1993	Endorsers: Clarence White Richie Sambora	The Fender Harley-Davidson 90th Anniversary Commemorative Stratocaster Clarence White's signature Tele Richie Sambora's signature Strat	Specifications of the Fender Harley-Davidson: 1.The hand-engraved aluminum body 2. Both Fender and Harley-Davidson's logos on the headstock 3. a bird-eye maple neck This model now costs around 50,000 USD on Reverb.com Richie Sambora is Bon Jovi's guitarist. The exhibit, five Decades of Fender, lunched in the Fullerton Museum Center.
1994	Designers (Luthiers at Custom Shop): Fred Stuart George Amicay J.T. English Ron Chacy Peter Kellett	Art Guitars: 1. Egyptian Telecaster 2. Aloha Strat 3. Aztec-Mayan Tele 4. Regina del Mare Strat 40th Anniversary 1954 Strat	Art Guitars built by Custom Shop: Highly decorated body, Strat design. The changing policy at Custom Shop: selected band of Master Builders 10 or so top luthiers working at the Custom Shop The characteristics of "Art Guitars Series" 1. Built by Custom Shop Team 2. The decoration was highly inspired by ancient European cultures or Hawaiian art. 40th Anniversary 1954 Strat made by Corona Factory (now casted around 3400USD on Reverb.com)
1995	Master Builder:	The birth of the Relic:	Custom Shop began building aged replica

	J.W. Black	1. Nocaster 2. Mary Kaye	guitars (Time Machines) 1. Nocster: in-between Broadcaster/Telecaster w/o model name 2. Mary Kaye Strat
1996	Endorsers: Kurt Cobain Steve Turner J. Mascis Richie Sambora Master builder: Larry Brooks	Player models: Kurt Cobain: Fender Jag-Stang Steve Turner: Mudhoney J. Mascis: Jazzmaster Richie Sambora: Japanese black-paisley Strat	Fender's 50th anniversary (from the year Leo Fender created K&F Manufacturing Corporation with Clayton Orr Kauffman Fender Jag-Stang was leased in 1996, designed by Custom Shop's master builder Larry Brooks, made by Japanese Fender.
1997	Endorser: Jimi Hendrix	Jimi Hendrix Stratocaster	Hendrix-related US-made Strats, from both Custom Shop and factory.
1998		Three types of "re-creations" relics New Old Stock Closet Classics Relic Style American Deluxes American Vintages	New factory in Corona, CA opened. -> Fender's Move back to an American Manufacturer.
1999	Endorsers: Jaco Pastorius	Jazzmaster Jaguars	Jaco Pastorius' Jazzmaster specifications: in sunburst, aged tribute version, replicating jaco's own road-weary Jazz, made by Custom Shop. The establishment of the Fender Museum

			of Music & Art in Corona, CA. The executive director was John Page. Kids Rock Free Program: Fender offered The Kid Rock Free Program lessons for children per week for instruments and singing, hosted in the Fender Museum of Music & Art.
2000	Endorsers: ColdPlay (w/ Tele and Strat) Radiohead (w/ 70s-style Tele Deluxe)	Custom Shop Time Machine series (all around $2,500 to $3,000): '64 Jazz Bass '51 Nocaster '59 P-bass '56, '60, '69 Stratocasters '63 Telecaster	
2001	Endorser: Ryan Adams (w/ Tele Deluxe)	The Tom Delonge Stratocaster 50th Anniversary Fender P-Bass	The 50th Anniversary Fender P-Bass was made by Custom Shop.
2002	Endorser: The Vines (w/ Strat)	New Squier Series 24 Japanese-made Mustang Bass reissued this year	Fender acquired other brands in this year: Jackson/Charvel The Squier was 20 years old.
2003	Endorsers: Marcus Miller (jazz bass) Jimmy Bryant (Strat) Robert Cra7 (Strat)	The American Stratocaster HSS J5 Telecaster (for Marilyn Manson's guitarist John Lowery)	Fender made an alliance with Gretsch in this year

	John Lowery (J5 Tele)		
2004	Endorsers: David Gilmour (Strat) Eric Clapton	The 50th Anniversary Golden Strat	The 50th Anniversary Golden Strat made by Mexico Fender Eric Clapton sold his Blackie Strat for $959,500 dollars.
2005	Artist: Dave Newman Master Builder: Chris Fleming	Jazz 24 Time Machines models: '51 Nocaster, '63 and '57 Tele, '59 Esquire, and Strat for '56, '60, '65, '66, and '69; '64 jazz bass and p-bass for '55 and '59 Fender Memorabilia Set	Korean-made 24-fret jazz bass Dave Newman and Chris Fleming worked together to build Fender Memorabilia Set. Fender Japan was reorganized. Dyna Gakki produced Fender's Japanese instruments. Guitars made and sold in Japan were distributed by Kanda Shokai Made in USA was distributed by Yamano Music.
2006	New CEO of Fender: Bill Mendello Dan Smith left Fender Endorsers: Eric Clapton	The Eric Clapton Blackie Stratocaster (limited edition) Squier Hello Kitty	Squier Hello Kitty's target market: young women
2007		J. Mascis Jazzmaster	Fender staged its first Hall of Fame event. Leo Fender, Don Randall, Bill Schultz, Freddie Tavares, Forrest White, Charlie Hayes were honored.

			New policy: to make Vintage-style instrument everyone wants.

Appendix II Taylor's Timeline

year	People	Models	Notes/Miscellany
1970	Bob Taylor	Making his first guitar by copying YAMAHA FG-180	Reference: Classic Guitar Construction, written by Irving Sloane
1973	Sam Radding		Bob Taylor was hired by Sam Radding and worked at American Dream Bob Taylor knew Kurt Listug and Steve Schemmer
1974	Sam Radding Bob Taylor Kurt Listug Steve Schemmer	Dreadnought body guitar Jumbo body guitar	Sam Sold American Dream to Bob and other two partners Bob invested $ 3,000; Kurt and Steve each invested 3,500 10/15/1974 American Dream was renamed Westland Music Company In the end of 1974, Greg Deering participated in Westland. Began using powered machines for saving time and money
1975		815 w/ dreadnought body	
1976	John Carruthers		Bought Indian rosewood from Martin Guitars with $1,600, and unable to paid back in 1977 Searching the opportunities to work with

			wholesales John Carruthers worked in Westland Taylor built 168 guitars in 1976
1977	Jean Larrivée	700 series 900 series	Participated in Rothchild Music (RMI), but the sales were not good. Taylor built 259 guitars in 1977 Jean Larrivée taught Bob Taylor why don't install frets before the neck attached on body, and showed Bob Taylor soft fret supplier.
1978	Augie LoPrinzi		After talking with Augie LoPrinzi, Bob Taylor asked his crews "complete three guitars everyday instead a batch of ten or twelve every few weeks."
1979	Endorser: Neil Young	500 series 600 series	Neil Young bout Taylor 855 and played it at Rust Never Sleep Tour. Terminated the distribution deal with RMI Lay off all crews. Productivity declined from 16/week to 8/week Taylor built 399 guitars in this year
1980			Began using KAO to make guitar Taylor built 100 guitars in 1980 Purchased power tools
1981	Francisco Andrade	600 series	Met Mexican luthier Francisco Andrade. Francisco Andrade invited Bob Taylor to visit guitar shop in Paracho, Mexico

			Built 600 series by using the consulting fees earned from the visiting tour to Paracho
1982	Kurt Listug		Drove to other cities for searching buyers
1983	Endorser: Chris Procter Bob Taylor Kurt Listug Steve Schemmer Tim Luranc Larry Breedlove		Taylor and Listug bought out Schemmer's shares Renamed: Taylor-Listug Inc. Rehired Tim Lurnac and Larry Breedlove Taylor built 493 guitars in 1983
1984	Endorser: Harvey Reid Prince Designer of K12c: Larry Breedlove Personnel: Bob Zink	512 812 K12c Blue guitar Purple Jumbo 12-string guitar	Released 512 and 812 at NAMM show Harvey Reid played Taylor guitar in Taylor's booth at NAMM show K12c: Taylor's first Grand Concert guitar, the smallest body size w/ tapered waist—for fingerstyle players. This is also Chris Proctor's model Proctor gave concert and Q&A at Taylor dealer's shop Blue guitar was an order for McCabe's Guitar Shop in Santa Monica Built Purple Jumbo for Prince Personnels:

			Bob Zink: body department Steve baldwin: finish department Tim Luranc: Stirring-up department Larry Breedlove: neck department
1985	Designer of A-10: Larry Breedlove Endorser: Harvey Reid	A-10	Harvey Reid played 810c at NAMM show Taylor built 681 guitars in this year with 11 employees
1986	Endorser: Dan Crary	Dan Crary signature model	The first guitar added to the standard line designed for playing style of specific musician Moved to new factory cite in Santee, CA Taylor built 890 guitars in 1986
1987			Taylor built 1,202 guitars in 1987 with 18 employees
1988	Personnel: Terry Myers T.J. Baden (salesman)		Terry Myers was hired to run the final assembly department for eliminating inefficiency. Baden had been a successful dealer (Guitar Showcase) of Taylor Guitars before Listug invited him to participate in Taylor's team in 1988. Baden's new job in Taylor was to educate other dealers how to sell more Taylor guitars. Productivity: 1,849 guitars in 1988

1989			In the end of this year, Taylor ordered a CNC from Fadal. Productivity: 2,238 guitars in 1989 with 50 employees.
1990	Personnel: Matt Guzzetta Designer: Larry Breedlove	Leo Kottke signature model (LKSM) Dan Crary signature model	Bob Taylor invited Matt Guzzetta to help improve tools and machines, including CNC, in the shop. Matt Guzzeta was allowed to use CNC for working for his own project. In this year, Taylor discontinued the hand carved moustache bridge on the jumbo guitars. Larry Breedlove designed and built new bridge for a new 12-string guitar by using CNC. Leo Kottke began using Taylor 555 mahogany jumbo 12-string because its playability was better than his Gibson B-25 12-string. Both LKSM and Dan Crary signature were not built for mainstream market. Instead, they were built for “tiny, but influential, niches in the guitar world.” (simmons 2003:151) Productivity: 2,427 guitars.
1991	Steve Klein	410 series	Taylor began building low-end guitars to compete with Japanese guitar makers. By using CNC, the price of the 410 series was $ 998, but it adopted high-end guitar’s

			specifications. In 1991, Taylor built 1,132 guitars of the 410 series. Taylor began interested in UV finish (ultraviolet finish) Bob Taylor met Steve Klein in the workshop of Association of Stringed Instrument Artisans (ASIA), when he had a talk to other luthiers regarding CNC.
1992	Endorser: Eric Clapton		Moving the factory to El Cajon, CA Eric Clapton played Taylor guitar in his unplugged TV show on MTV. New Market policy: creating a series of ads to introduce Taylor's innovation
1994	Designer: Steve Klein	AB1 and AB2 (acoustic bass)	Working with Steve Klein and released AB1 and AB2. Both AB1 and AB2 were the first product designed by luthier not hired by Taylor directly.
1995			Productivity: 11,000 guitars; and hired 136 people
1996	Cooperation with: Rick Turner/ Jessica Baron	Baby Taylor	Bob Taylor bought 3,000 copies of Jessica Turner's new guitar lesson curriculums for his

	Turner		Baby Taylor. Bay Taylor was designed with CAD/CAM program, made by using Fadal CNC machine. Very cheap, only $398.
1997	Jessica Baron Turner		A successful lecture and performance to promote Baby Taylor at NAMM.
1998		Walnut series W10 W12c W14c W15 W65 300 series	Taylor expanded the line from 38 models to 61. The price of 300 series was lower than $400.
1999		XXV-GA XXV-DR	XXV-GA and DR were the 25th anniversary models. The innovation of NT neck. Announcement to create a factory in Tecate, Mexico, which only produced guitar case, but would make guitar parts in the future.
2001			All guitars made from this time adopted NT necks.
2002		Nylon series	Taylor released nylon series guitars.