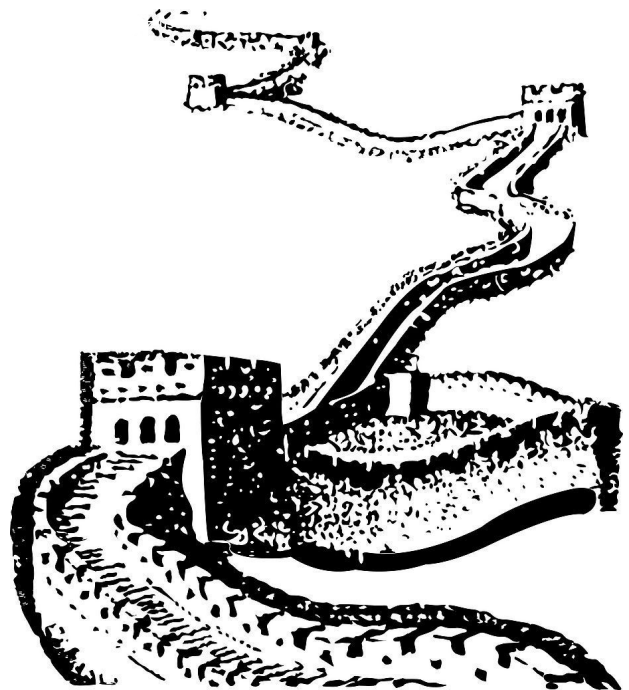




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The study and evolution of the Chinese traditional furniture in contemporary China

Relatore Alessandro Deserti
Elaborato di laurea realizzato da Zhao Ya
Matricola 707517



Abstract

We Chinese have been bogged down for a quite a long time in the furniture area. It is just like the stop situation of the art area. My thesis doesn't want to talk about more about why and how. My focus is on the future. Here I want to study and understand the situation now. Try to find what it should be about the Chinese furniture.

I start from our forefathers' traditional furniture, by the study of the history I would understand what we need, our habit, even our thought. Usually If we want to talk about one territory we should be base on ourselves. The thesis starts from the introduction of the Chinese traditional furniture's history from every dynasty, and then I will introduce the material and technology on the traditional furniture. After collect these information I turn to the modern Chinese furniture areas, I would talk about the situation about the design, market, the emotion of the Chinese of this moment. I begin to select the Chinese traditional elements, because I think it is the richest storehouse for all the Chinese. I would go deeper and deeper to find the solution of development in this way.

All the preparation will give me a good foundation for make a new Chinese furniture project not just the idea, even extend to the market and tendency, and satisfy the people for the emotion in Chinese. Finally the furniture should show the Chinese evolution style in the modern furniture area. I chose one element from the traditional furniture from the plenty of elements. This element started from the Yuan dynasty, and became popular in Ming dynasty as one obviously sign of the Ming style. It will be exist on my furniture bodies. Its name is "humpbacked stretcher". We Chinese call it "Luo Guo Zhang". It is exist in the area of Chinese traditional Architecture, as we all know the Chinese traditional furniture's origin is Architecture. I use this element to evolve the new style, use it as the sign in my project.

After this thesis, I know one way for the Chinese furniture's future. We should be base on ourselves to begin the project, maybe the traditional element is a good start, or maybe the modern element is a good start. Wherever we start from, remember the foundation is ourselves. Do not continue do the wrong things, because we have our Chinese particular style. What we need to do is just to realize this treasure. This is what I want, this is what we need. I hope we Chinese can take up opportunities on area of furniture not only the economic field or the politic. We should be recovery, reach the height just like the Ming style.

Abstract

Noi Cinesi sono impantanati per un periodo piuttosto lungo per il mobile. Come la situazione dell'arte. Il mio tesi non parla più per il perché e come. La mia attenzione è rivolta al futuro. Qui voglio studiare e comprendere la situazione attuale. Prova a trovare quello che dovrebbe essere di circa i mobili cinesi.

Io comincio dai nostri mobili tradizionali, dallo studio della storia ho capito che cosa abbiamo bisogno, nostra abitudine, anche il nostro pensiero. Di solito se vogliamo parlare di un territorio che dovrebbe essere di base su noi stessi. La tesi parte dalla introduzione della storia del mobile Cinese tradizionale da ogni dinastia, e poi introduce il materiale e la tecnologia sui mobili tradizionali. Dopo la raccolta di queste informazioni io rivolgo alle aree moderni mobili Cinesi. Vorrei parlare della situazione circa il mercato, il design anche l'emozione dei cinesi di questo momento. Comincio a selezionare gli elementi tradizionali cinesi, perché penso che è il più ricco tesoro per tutti i cinesi. Vorrei andare sempre più in profondità per trovare la soluzione di sviluppo in questo strada.

Tutta la preparazione mi darà una buona fondazione per fare un nuovo progetto di mobili Cinesi, non solo per l'idea, anche per l'estendersi al mercato e la tendenza, e soddisfare il popolo per l'emozione in cinese. Infine i mobili dovrebbe mostrare lo stile Cinese evoluzione nella zona di mobile moderna. Ho scelto un elemento dai mobili tradizionali l'abbondanza di elementi. Questo elemento è partito dalla dinastia Yuan, ed è diventato popolare nella dinastia Ming come uno ovviamente segno dello stile Ming. Sarà esistere sul mio corpo mobile. Il suo nome è "humpbacked stretcher". Noi Cinesi lo chiamano "Luo Guo Zhang". Questo elemento esiste nella zona di Architettura tradizionale Cinese, come tutti sappiamo l'origine del mobile cinese tradizionale è Architettura. Io uso questo elemento per evolvere il nuovo stile, lo uso come il segno nel mio progetto.

Dopo questa tesi, ho conosciuto un modo per il futuro del mobile Cinese. Dovremmo essere di base su noi stessi per iniziare il progetto, forse l'elemento tradizionale è un buon inizio, o forse l'elemento moderno è un buon inizio. Ovunque si parte da , ricordiamo la fondazione che è da noi stessi. Non continuare a fare le cose sbagliate, perché abbiamo il nostro stile Cinese particolare. Quello che dobbiamo fare è proprio per realizzare questo tradizionale Tesoro. Questo è ciò che voglio, questo è ciò che ci serve. Spero che noi Cinesi possiamo cogliere le opportunità della mobile sviluppo non solo del il campo economico o politico. Dovremmo essere di recupero, raggiungono l'altezza, proprio come lo stile Ming.

Introduction

As a foreigner in Italy, I thank this chance for study furniture design in politecnico di Milano, the study taught me to think about what is the furniture with the Italian way of thinking. And now when I think about one thing I own two ways, usually the fuse will bring us an incredible result. Before I was in China, I can't understand Italian Furniture, and when I start a project what I think about is just the Chinese, the style traditional and our life. After studied 2 years I know why the Italy furniture is developed country, because of its perfect furniture system, reach the height on the world. I realized we Chinese have a long way to walk after a long lag phase.

When I had a long time for study the Chinese furniture history, I realized the height of the Chinese traditional furniture, I began to research from this point, my thesis's direction became clearly. Because on this way I could understand what the old furniture were, what we Chinese need even in the contemporary society.

In my thesis, I will talk very thoroughly about Chinese furniture from every dynasty to every category, from the material to the technical, from characteristic to locale, from notion to belief, from elements to life. Every possible will become the possible for solution, Italy furniture start from itself, so we can also start from ourselves too.

In China, the furniture is written by the two Chinese calligraphies "JIA+JU". JIA means HOME(house, family), Ju means waref(table, chair, light, glassware.....) We are a very traditional country with a long time custom immutable. We think the Jia is the most important, so the Ju in the house become very important of course. So our forefathers made the furniture perfectly with our Chinese comprehension about the Home, we think the Ju will own the emotion after we put at home, so what ever we design or we produce, we should join our emotion in it. We are good at it before because we live in the Taoism, we believe the "Dao", it is our lifestyle and Values. Until now we Chinese are also like before, even there are many problem with us, but this thought for the Chinese is impossible to be changed. I will take more attention in my thesis and idea base on the emotion Taoism.

The Chinese furniture have many problems, like the strategy, the design, the manufacture, the market and the brand. I will collect the information and analyze the information, find a kind of balance point between the furniture and the society. This will be the real Chinese furniture future.

I will make my project with the name of Chineself, means Chinese ourselves, pay attention about the emotion, the thought and the habit. At last the project should be go the right way, produce the right product, put the right space coordinate with the right life.

Contents

Introduction.....	2
1. History reseach.....	3
1.1 The Chiese furniture abstract.....	6
1.2 Chinese traditonal furniture history.....	9
1.21 Low furniture rudiment.....	10
1.22 The high-type furniture develop.....	15
1.23 The most splendid periodin	19
1.24 Decline	28
1.3 Chinese traditional furniture genre	29
1.31 Regions created the genres.....	30
1.32 Characteristic from China.....	32
1.33 Traditional material.....	34
1.34 Mortise and tenon component.....	36
2. The modern Chinese furntutre.	38
2.1 The modern Chinese furniture region).....	39
2.2 Locality and brands.....	40
2.3 Brands and basic eviroment.....	42
2.4 Design and Production.....	44
2.5 Data statistics.....	46
3. Development.....	49
3.1 The traditioanl elements collection.....	50
3.2 Development.....	79
2.21 The existent Chinese modern furniture	80

3.22 The keywords.....	86
3.23 Collection of the Chinese furniture parts.....	92
3.24 The simily elements.....	98
3.25 Idea sviluppo.....	100
4. Concept.....	108
4.1 Low and high Carbinet.....	114
4.2 Tv cabinet.....	122
4.3 Bookshelf.....	126
4.4 Armchair.....	130
4.5 Table.....	134
4.6 Sofa.....	138
4.7 Bed.....	142
Source.....	146
Bioliography.....	146
Linkgrphy.....	147
Thanks	148

Chapter one

Research in history

Chinese history will be a long time history. There are many hard times and splendid periods. Study this history will help us know more about this country and the peoples.

The Chinese furniture abstract

China is a long cultural tradition country, during the process of the very long history, we have created splendid culture. The furniture is one very important element in all these culture. For thousands of years, because of the development the furniture had evolved a special style. By study the furniture of every dynasty, it will help me to understand the life, the culture and the emotion at that time. The traditional Chinese furniture played an important role before in the world, so it had the deep influence for the world furniture history. Study this history, is very useful to to complement the knowledge for the furniture history.

Furniture this word, we usually say it like the words “desk, chair, stool, and bench”. The forefathers usually sit on the ground, there was bed on the room, there was mat on the floor. Then appeared the folding screen, the narrow waistless table and recessed-leg table and so on. The bed was used as the bedding and seat, on this basis evolved the Chinese daybed. The bench and stool appeared at dynasties “Shang, Zhou, Qin, Han, Wei”, but they were not popular. Until Han dynasty, the Barbarian seat arrived the central plains of China, the high-type furniture began popular. The real high-type’s popular period is at Han dynasty, because of this the category of the furniture increased. The furniture of Yuan, Ming, Qing dynasties made the perfect furniture, reached the summit in the history on the design and technology. After that time, this area came into one stop and decline period. Study the traditional furniture should be base on the associated materials, some is from the real furniture, some is come from the word and picture like the picture from the grave, they are all the important sources.

By study the history, culture, politic, life, economic and the religion, we could make sure the furniture style and direction during that period. By study the scientific and material technology, we can understand the furniture manufacture, material usage and craft. We can also study from just the form, craft, material and decorate. The form is very important because the form represent the style of the dynasty. For example Tang style is circular shape, Song style is rectangle, Ming style become more symmetry and pithy. Qing style is vigorous and overelaborated, The decorate is a very important part for study, the content. Technique. Vein and subject are very different, like the Ming style like use the small size of embossed and engraved, but Qing style like embossed, inlay and painting the gold and silver... Besides the choice about the material and the Mortise and tenon technical is also important for study.

After the Ming and Qing dynasties, the Chinese furniture’s development is cutout. Where is not a real style, so make the modern Chinese furniture has no status on the world. So the Chinese furniture must be base on the good traditional and more creation for survival.

The furniture should be a product with deep cultural connotation, it represent the time, the society, the culture even the emotion. After the Chinese reform and open policy, many western elements arrived China, and the Chinese begin to be diversification for many areas, and the conflict becomes more and more aggravation between the thousand years` culture and the western culture. But we have to face this condition and can't change it because it is one information world now. What we can do is base on the traditional for create the modern life. Don't lost ourselves is the foundation. On the other hand we should know more about our life, the life become more pluralism and not like before. So the request in the function has the huge different. In this situation we can't just go the way by copying the old furniture. We should know the spirit and evolve the new style about the category and function. The furniture should own the aura eastern and also the suitable function for the normal life.

Because of the development of the economic, we have a good background for the furniture, and we should pay attention more about the technical, design and management, marketing and so on others which can develop the furniture area. Although the Chinese furniture has a fantastic history, but that means nothing for now, basically the area of Chinese furniture is at the stage of copy, every industrialized country can't avoid this way at the first stage. But we should understand the "copy" should not be the copy, we should "copy" by joining our emotion , joining our culture, and then the style will appear. This is the real way for the future. I believe that we will have our new Chinese style in the furniture areas.



Chinese traditonal furniture history

Low furniture rudiment

The high-type furniture develop

The most splendid periodin

Decline

Low furniture rudiment

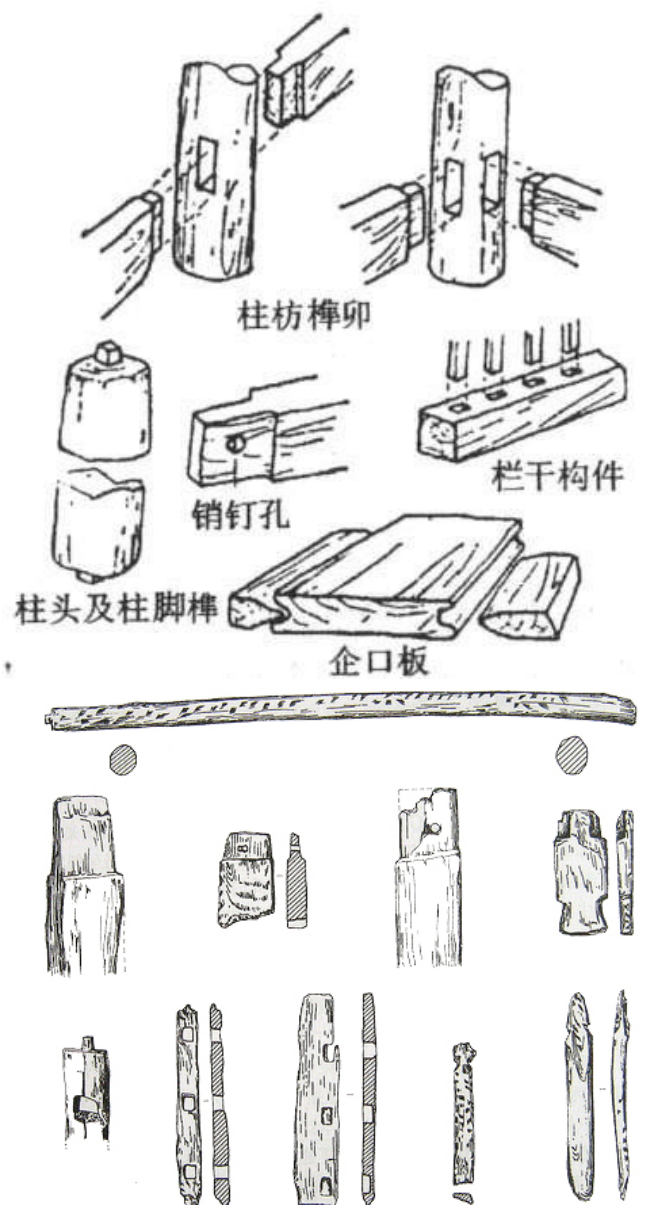
Prehistoric Furniture

The origin of Chinese furniture wood components started from the Prehistoric culture. As we all know the wood components frame structure architecture is the mainstream form in Chinese history, we call the Ganlan wood components structure of Hemudu in Zhenjiang province as the origin of the whole Chinese nation architecture.

Chinese traditional furniture is base on the wood components from the architecture. We call it tenon-and-mortise work (Sun Mao), it is the sign for the Chinese furniture history. Long time ago, at the prehistoric time, the Chinese aborigines used their hands to create the furniture. The mat(on the ground and sit) is the oldest furniture style, and the wood chopping board, the wood chopping block(a sacrificial utensil) and the wood small table....., these are the start of the low furniture. Of course we use the modern vision to see these furniture, they are so simple and crude, but because of this start Chinese made the romantic magic low style furniture in the later days.



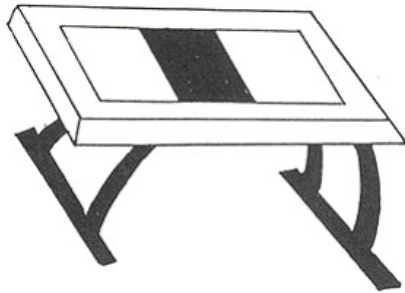
Ganlan wood components structure architecture



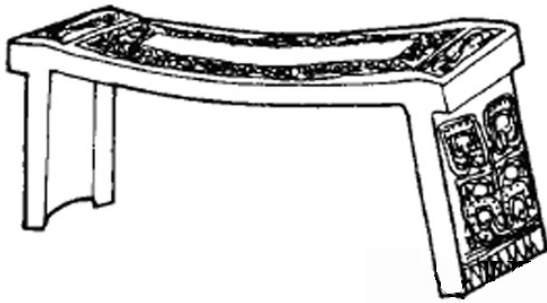
tenon-and-mortise wood component



Shang and Zhou Dynasties furniture



Zhou dynasty the chopping block(a sacrificial utensil)



Shang dynasty the chopping block(a sacrificial utensil)



Western JIN(kind of desk)



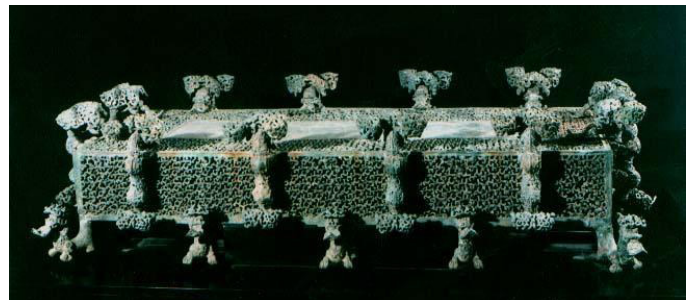
Gluttonous cicada pattern the chopping block

Xia . Shang , western Zhou Original .antique. rustic .vigorous

Xia Shang Zhou dynasties is the beginning period for traditional furniture in China, they are all original –antique–rustic–vigorous. The normal materials are bronze, stone and wood. The furniture category are the the chopping block(a sacrificial utensil).

The lacquer wood furniture: This technical appeared at Neolithic times, develop until Xia Shang dynasties , began to inlay the clam shell on the furniture as the ornamental as the origin of this style in the Chinese furniture history.

The Bronze furniture's four legs style and the symmetry style continued for thousands of years.



Gluttonous cicada

The period in Spring and Autumn Warring States

The period in Spring ,Autumn and Warring States
Colorful and mysterious

The furniture of this time is the main origin of the lacquer wood furniture at the system of Chinese furniture and the Chu state lacquer wood style is typical. Chu state style own many categories: styles of Chu Zu(a kind of desk), exquisite beyond compare Chu state lacquer wood low table, the special style Chu State sitting screen and the oldest bed until now on. The Extremely brilliant colors, the romantic magic pattern and the theme with cloud, bird ,dragons and phoenixes patterns shows the strong feeling of witchcraft. Chu style as one kind of rudiment of the industry art its simply form has the profound influence for the all the later furniture.

Furniture categories:

Colorful wood bed:

The oldest bed as the primogenitor for all the beds.

Chu State little sitting screen

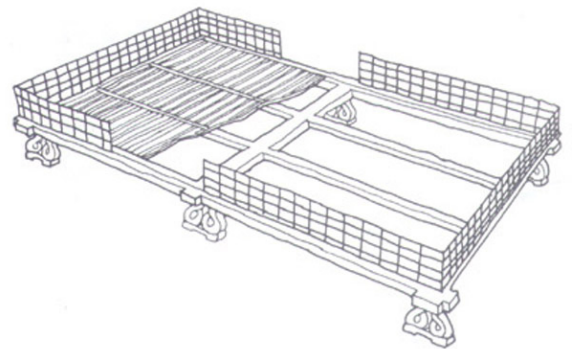
Marks the Chinese furniture began own the absolute ornamental value for appreciate.

The period of Warring States-H style chair:

The messiness and primitive simplicity form marks industry art change from frozen to wood.

Technical:

The techniques of bronze founding developed and appeared the investment casting.



Colors painting bed



Warring States little seat screen



Bronze chopping block



colorful painting narrow waistless table



Han dynasty little seat

Qin and Han Dynasties furniture

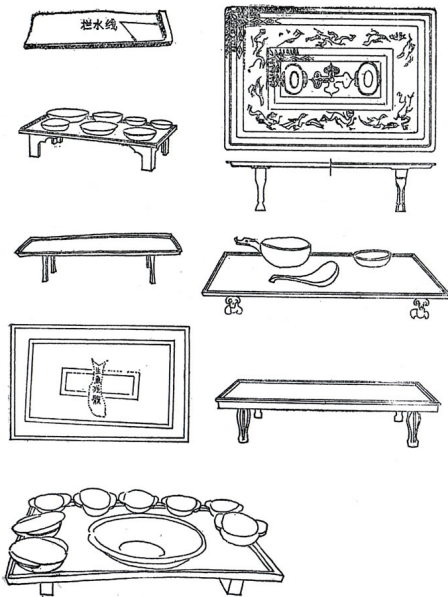
Qin and Han dynasties

Categories varieties and exquisite beyond compare

At Han dynasty Chinese feudal society arrived the first golden age, the whole Han dynasty furniture crafts had a great development. The eximious ornamental on the lacquer wood furniture make the furniture shine and perfect in the furniture history. Moreover appear the jade furniture, bamboo furniture and porcelain earthen furniture...and coming into being the complete furniture category system which is base on living on the ground. This period is regards as the typical case for the low furniture history.

Category furniture

Single slab seat: The appearance of the new little seat is regards as the originator for all the seats.



Recessed-leg table



Golden bronze jade pillow



Bull and tiger bronze desk

Three Kingdoms and Two Jin

Three Kingdoms and Two Jin

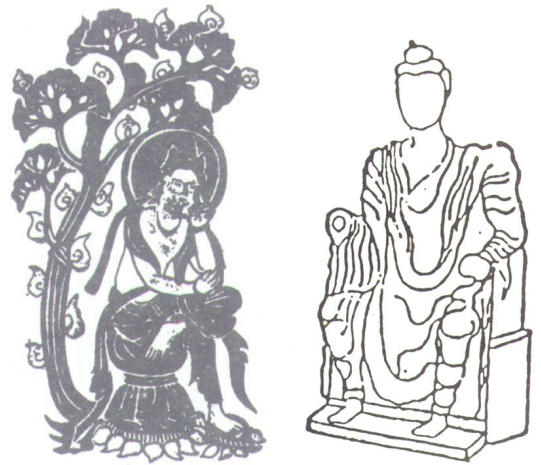
Emerge new style and become concinnity and elegant

The change of Chinese traditional form revolve around two types of sitting, one is ot sit on the ground , the other one is to sit like how we sit on the chair now. Because of this reason this period became a important transition period in the Chinese furniture history. The Huchuang and other high-type furnitures incoming from the Chinese minorities, and the style syncretize with the central plains style , make the hight-type furniture appear from parts of district. The chair and the stool began develop and the bedding type began upraise, but totally the low-type furniture is still the lead in the market.

Category furniture :

This period the furniture was changing from the low-type to the high-type.

Hu chuang (seat) :make the Chinese minority high-type style syncretize with the central plain low-type style , like the bed for sleeping upraise, and on the top of the bed there are roof and mosquito net, can also seat on the bed with the two legs perpendicular to the ground.



Shoe-foot seat and high seat



Bed



Barbarian seat



Wood Surrounding backrest with three legs for seat

The high-type furniture develop

Sui and Tang Dynasties furniture



Tang style furniture



Tang style armchair and Shoe-foot seat

Sui and Tang Dynasties---gorgeous and civility

Sui and Tang Dynasties are the summit period in Chinese feudal society in history, the furniture reached a new historical stage by inheriting the past achievement and absorbing the exotic culture.

Tang dynasty furniture pursue the free and fresh style for the workmanship and the ornamental. So made the Tang style break away from the primitive and crude style which was started from Shang dynasty to Jin dynasty. Became the style gorgeous and civility.

Category furniture

The low-type and high-type coexists and carry out the transition to the high-type.

Desk: the desk is used widely in the life.

Leisure chair: evolved from the Huchuang backrest of Three Kingdoms, was used by people in normal life little by little, not only be used by the monkish.

Dolioform Seat pier : Came from the Wei and Jin dynasties` Bodhisattva seat, in Tang dynasty more refinement and popular, owned more forms.



Tang chair



Colorfurl painting box

The high-type furniture with a great development

Song(Liao Jin) dynasty

Song(Liao Jin) dynasty
Mature and pithy

In the Song dynasty the high-type had been universal on the normal family, like the high leg bed, the high small table and the towel rack..., at this time there appeared many other new furniture, like the fauteuil, the drawer frame... The Song style pithy ,neat, elegant and meaningful. All the furnitures of this period had the simple and unadorned forms, seldom owned the overelaborated decoration, the decoration maybe just bring out the crucial point the topical. Just like the corner line decoration, it make a little embellish for the leg, but always be lack of the magnificent feels.

Category furniture

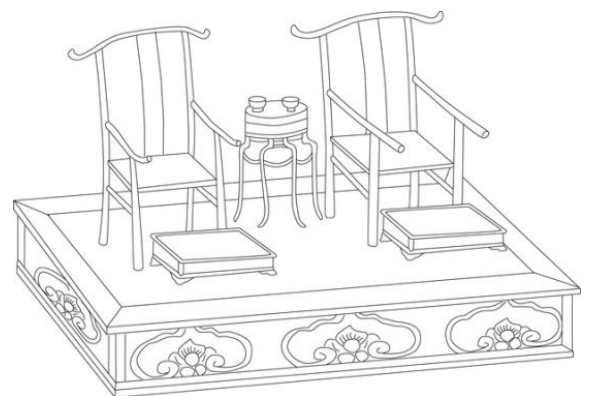
Table and chair: Copy the wood components structure of architecture use the simple frame as the structure, laid the foundation for the Ming and QING frame style. Appeared the fauteuil named by the politic rank.

Folding screen : Because every family will set the screen at hall , pay attention more about the position for putting . Song dynasty furniture represents the change for living style lasting for thousand years.

At the last years of Eastern Han dynasty, the high-type life appeared at the Central Plains, and had the influenced to the people of Buddhism and nobleman. The living style in Sui Tang and the Five Dynasties was concomitant for the high and low type. In the middle of the Song dynasty, the high-type furnitures were used by the large numbers. We can find in the famous painting "Riverside Scene at Qingming Festival",the high-type desk and stool are found everywhere. But I should say as the representative of the high-type , the chair is not used very widely, this is the condition at that time, the using of the chair by the people of North Song showed the interim from the old to the new type. In south Song dynasty, the chair became very universality for using.



Song dynasty Folding armchair

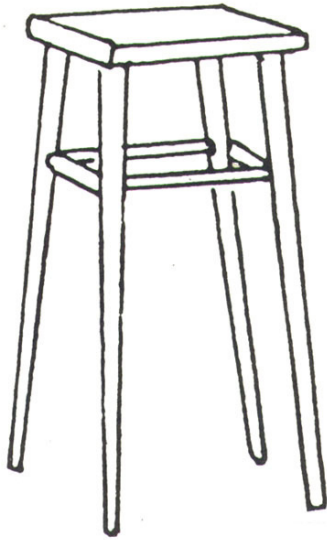


Song Daybed with high-type chair has the relationship with the filial duty between father and sons and daughters



Armchair with curved rest

So we say at the south Song dynasty ,after thousand years we Chinese people's life style changed finally , arrived the high-type period, and this style continued even until now.



Jin dynasty high narrow waistless table



Liao dynasty long desk



Song armchair



Painting for one desk with two chair type



"Riverside Scene at Qingming Festival"

Yuan dynasty furniture

Yuan dynasty furniture

Thick and engrave gaudiness

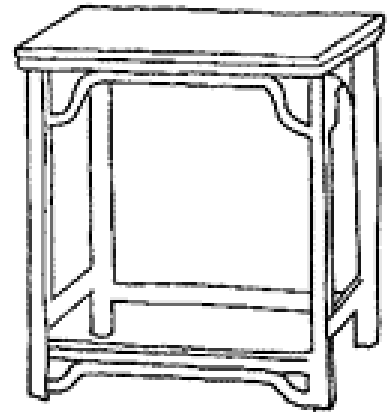
Yuan dynasty was a dynasty erected by Chinese Mongolian, because Mongolian advocated militancy, sought the sumptuosity. The style of furniture shows this situation, used the thick form engrave gaudiness, own the grand, bold and unconstrained and gaudiness style, the styles are differend, the bed has big dimension and the seat own the Horse-hoof foot.

Furniture category

Bed: Because of the huge body of Mongol , the bed became very big.

Table: inherited the form of Song style, but the high desk's using number increased, appeared the narrow table with drawers.

Humpbacked stretcher : Changed the unbent stretcher to the Humpbacked stretcher is the great creation for the Chinese furniture for comfortability and applicability.



Humpbacked stretcher table



Furniture in the painting



Wood mirror stand



Yuan style folding chair

The most splendid period

Ming style

Qing style

Ming dynasty furniture

Ming dynasty furniture

National marrow and elegance and refinement

Ming dynasty is the most splendid period in the furniture history, after about thousand years development, the Ming style finally reached the summit. Its hardwood furniture is respected and appreciated by people from the world even now. Ming style furniture is particular over the material and elegance, choose the high strength, good colour and lustre, pretty veins wood, wax on the surface to express the nature veins and colors. All of these want to show the Ming people's pursuit of the spirit with primitive simplicity and elegance. Ming style as the national marrow in the furniture history have the highest position, from Ming style we Chinese furniture arrived the unprecedented epoch in the area of hardwood furniture.

Category furniture

Ming style bed: diversification, there were the Daybed, the Canopy Bed like a small house, the solemn and serene arhat bed and the Alcove bedstead...

Ming style bed: Began use the hardwood, diversification, there were Official's hat armchair like the old official hat and the seat pier with arm and backrest.

Ming style screen: had a big development on the base of Song style's craftwork and style, more elaborate. Had six, eight and twelve screen in the category. Appeared the Slanted apron on the screen.

Yellow Huali wood arc backrest Folding chair:

Ming style's design is reasonable, especially the details design is more well-done, pay attention the connotation and mellow, the user will feel the chair soft and comfortable because of the arc line detail, the component is used perfect. The chair is the superior work in Ming style.

Armchair with four protruding ends: The simply form, suited numbers of ornamental, own the arc and straight line combined. This chair has the a pithy style is the representative work in Ming styles.









Qing dynasty furniture

Qing style- ----- rich and magnificent

The manufacture craft of Qing style is perfect , arrived the peak in feudal society. The furniture of this period inherited the traditional technical and absorbed the foreign culture, formed a distinctive epochal style. Because of the economic prosperity, also formed different regions styles, for example the Guang STYLE, Su style, Jing style and so on with different styles. The form of Qing style is vigorous and steady, the ornamental is gorgeous and overelaborated, the manufacture craft is exquisite, and because of the time is not too far away for us, many furniture were conserved very well until now. It is easy to study them. They have made a big influenced for the modern society.

Category furniture

Shoe-foot Stool : Continued the style of Ming style, because of the different regions appeared the different style, like Guang style changed more on the outside ornamental. Jing style paid attention on the sculpture and used the copper as the ornamental.

Folding chair: In the Qing period , was used less and less, the numbers of maker became little and little, it became to die out in the furniture.

Qing style backrest chair: developed base on the Ming style , more meticulous for produce, the Angular spirals is the style of in Qing style.

Throne: derived from the Armchair of Ming style , is a huge armchair, the resplendent and magnificent style is the symbol of the King's powerful.

Large bench: It own the rich national consciousness from the special region.









Republic of China furniture

Republic of China -----traditional charm and fuse

From the Qing dynasty to Republic of China. China society is on the situation of the violent storm. The destroy made the big influence for the area of furniture. This period the Chinese furniture was influenced by the western style. The furniture was westernized very quickly. For example the Guang style, some furniture was engraved from leg to the head, make the furniture become one carving craft. These furniture were just like the western furniture but made in China.

Then together with the popular with the Guang style, the Chinese traditional furniture disappeared bit by bit. The style of republic of China absorbed the foreign culture to create a special style.



Chinese traditional furniture genre

Regions created the genres

Characteristic from China

Traditional material

Mortise and tenon component

Regions created the genres

The Chinese traditional furniture has genre. The different genre has the different style because of the different culture of regions. Usually we say there are three big genres in the history. They are Su, Guang and Jing. The small genres there are Jin, Ning, Lu, Min and so on. The three big genres are the famous three style in the Chinese furniture history, and the Su style was born at Ming dynasty, it is the origin of Ming style, we always say that the famous Ming style is mainly style with the Su style.



Su style

1. The style is elegant with classic simplicity. There are a little inlaid and carved work. It is full of traditional culture emotion.
2. The structure is associative perception with the fluent line.
3. The perfect proportion dimension.
4. The arc detail.
5. The choice of material



Guang style

1. The messiness body with more material
2. The uniqueness material for one furniture, for example only use the Huali wood in one chair.
3. The more inlaid and carved work.
4. The plentiful of material for produce.





Jing style

- 1.The dimension between the Su style and the Guang style
- 2.More craft and technical
- 3.More luxurious with the ornamental like a handicraft article.



The other genres:

The Jin style is famous by his lacquer wood furniture

The Ning style is famous by his folk-custom style

The Lu style is famous by his special craft.

The Hai style is famous by his western style.



Characteristic from China

Chinese have the traditional habits and customs. The change of dynasties, the development of history, the differences of the religion and many factors influenced the way which the Chinese furniture had passed.

Here I will talk about the Chinese thought influenced by Taoism. As we all know the Taoism is the most important thought genre in our history, it has about 1800 years history. It is a symbol for Chinese thought. The "DAO" of Taoism mean the "QI", the "QI" can means everything, we say it is alive and we say it can change to be everything. The change will not stop without end. The harmony between man and nature will be the highest state.

The harmony between man and nature means the life should be unanimous with the nature, because of the harmony, we can fell the nature, we can enjoy the nature even we can beome the nature.

The thought of "harmony between man and nature" influenced the Ming style strongly. Ming style is like born with this harmony. The material choose , the elaborate structure, the perfect craft, the use of dot, line and plane, the union of the roundness and squareness and the words of the carving, all of these tell us that this is the affinity between man and the nature. The beautiful realm of the harmony is clearly on the Ming style. Ming style use the personification trick, the simulation design, the celestial circle and the squareness of the earth thought and the meanings of the different carvings, like to tell us this is the harmony with the nature, this is the idea. The people should be harmonious with the nature. This is the words we always say "opportune time, advantageous terrain and popular support".



Traditional material

Chinese furniture material is the very important factor. The expensive materials there are Zitan wood, Huang huali, Hongmu, phoebe nees and so on, they are mainly used by the Ming and Qing dynasties in the palace.

The mainly hard wood used for the furniture are :

Zitan, Huanghuali, Hong mu, Jichimu, Tielimu, ebony . For the soft wood the Phoebe nees is more expensive, there are other soft wood like Juglans, Ulmus L., Zelkova schneideriana, cinnamomum camphora and so on. Here is another special wood is Burl from many kind of trees.

Hard wood

The dainty traditional furniture usually use the hard wood, because the wood grain close and the wood hard, the colors are wonderful, the vein beautiful. By using this kind of wood, the furniture will be preserved for a long time.

Zitan, Huang huali , Jichimu, Wumu ,Suan zhi

Soft wood

There are many kinds of soft wood for make the furniture, the price is acceptable by most people. The soft woods are usually used for carving on the detail on the small type furniture.

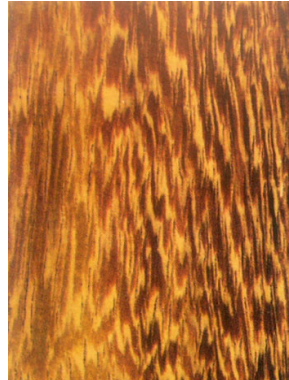
Shan mu, Du mu, Hetao mu, Yu mu.....



Zitan



Huang Huali



Jichimu



Suan zhi

Hard wood
Soft wood



Shan mu



Du mu



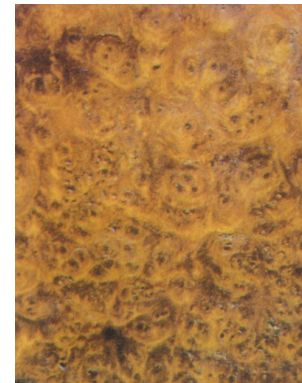
Hetao mu



Hutao mu



Qiu mu



Ying mu



Yu mu



Ju mu



Zhang mu



Nan mu

Mortise and tenon component

The influence from the Chinese wooden Architecture

Chinese traditional furniture's development had passed the similar way like the architecture. It is a process from the laminated masonry type to the frame type, from the low-type to the high type.

The development of the architecture component promoted the evolution of the furniture wood component. Wherever on the whole structure or on the detail, we can almost find the same archetype in the traditional building structure.

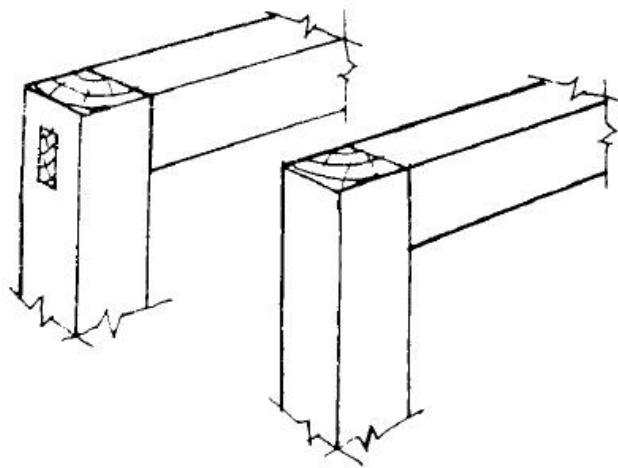
The process of the evolution always has the characteristic of time lag, so the following furniture always delayed after the Architecture.

Mortise and tenon

Mortise and tenon component is the special connect type for the Chinese wood component. Mortise is the convex part, tenon is the concave part. By connecting firmly the convex and concave part by two or more wood components. The furniture will be very strongly. The mortise and tenon system is the normally structure in the Chinese traditional furniture.

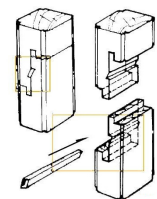
The western wood furniture, for connect the wood pieces, usually they use the metal pieces, the iron nail is the most one. Chinese furniture are totally different, just use the mortise and tenon wood system, and some time use some adhesives, basically don't use the metal piece. The mortise and tenon is one part of the furniture, own the same material, own the same lifetime with the furniture itself, and won't have the situation that the iron rust lead the furniture destroy. And the metal piece has a high rigidity, so it is impossible for the proper distortion in shape, but the wood has the elasticity, if the wood architecture or the furniture are hit by the external force, the wood mortise and tenon will change some shape and resume in time. So it will not to be destroy easily. As we have seen, there are many Ming style furniture, they have the age for hundreds of years, but still strongly like the first.

The main kinds of mortise and tenon



Exposed tenon and Hidden tenon

Mortise and tenon's advantages



The rationality for the technical. After study we can know every mortise and tenon is rationality on the connection and the mechanics

The mortise and tenon keep aesthetic of the furniture, the aesthetic shows on the structure is obviously.

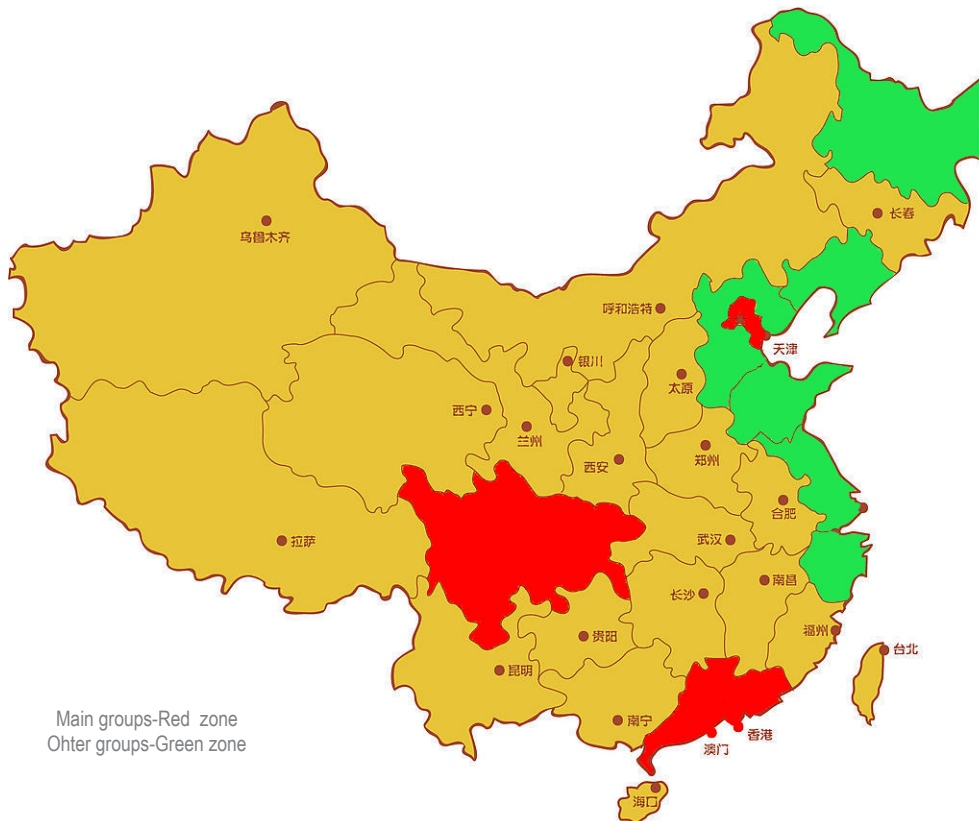
The completely types and numbers of categories tell us the mortise and tenon's long history.

Chapter Two

The modern Chinese furniture

Chinese has a great development on the economic, but the area of furniture is a behindhand area, it is a area controlled almost by the private economy, and so on.

The modern Chinese furniture region



China has a great development on the economic, but the area of furniture is a behindhand area, it is an area controlled almost by the private economy, the present situation is weak foundation, low industry, late start and inharmony with the high speed development economic. The characteristics of the modern furniture area are young age, juvenility and small scale.

Even has the problems upstairs, the Chinese furniture has its personality development. The furniture industry areas in China are separated for three main groups by the regions, and these groups are coming into being their own characteristics little by little.

Shen Zhen, Dong Guan, Shun De as the core in Guang dong province--Guang furniture

Bei Jing capital--Jing furniture

Cheng Du as the core in Si Chuan province--Chuan furniture

Besides there are Shan dong province ----Lu furniture

Jiang Su, Zhe Jiang, Shang Hai ----- furniture

He Bei, Tian Jin---JI furniture

Ha Er Bin, Shen Yang----Dong Bei furniture

Locality and brands

Now I introduce the three big groups as the mainstay for Chinese modern furniture, they are the fashion Yue furniture, the steady Jing furniture and the pragmatic Chuan furniture.

Yue furniture:

It survives by fashion design and exhibition. Although do the design by copy the western furniture, but the design is still go head. The Yue furniture is Modern with fashion elements. Try to take the tradition to design and try to make the feeling of home.

The main brands

FZD, RED APPLE, ROYAL, Kinwai.

Jing furniture:

the Jing furniture market locates on the high level. As the leader of the flat panel furniture, the Chinese classical furniture has a high proportion in the production. Because of the region culture, the design is more steady but lack of the fashion elements and human oriented.

Main brands:

QM, Beking

Chuan Furniture:

pay attention about the practical, increasing the creation, the Chuan furniture is the a dark horse in recently years. For the market by using the strategy "Encircling the cities", has got market from the second tier city by the low price and the practical style.

Main brands

Quan you, Sufoo, M&Z, South furnishings



FZD
富之岛家具

Kinwai



Brands and basic environment

Now in China although the brands stand a low level position, but almost brands have the brand awareness, and they all want to rise the famous popularity by advertisement. It looks like a flourish situation, many news, many activity and many advertisement. But it is far away for the real development, we should realize the good sale is not the market, not the brand. Let's look back the quality, the design, the technology, the brand. Let's look back the quality, the design, the technology, the craft, the strategy and the communication, all of these have the big problem. If we don't pay attention them, the result is loss. We can see our furniture embarrassing performance in the world now, we are lag so much, and this situation will not changed very quickly, because of the limit from the society just like the art area. The society environment and the humanistic environment limit the development so much in China and Chinese furniture has a long way to walk.



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Design and production

The design similarity

In recent years the furniture industry develops quickly. The number shows, in 2010 the whole gross product in the furniture industry is 167 billions Rmb, increased 17.8% than last year, the export arrived 15.755 billions Rmb, increased 27.6%. These number tell us the China is becoming the important world furniture factory in the world.

In China we always say the brand creation is the design, although the sale for the furniture tells us Chinese furniture is in a good situation, but the professional insider knows there are so much problems back of the numbers. The critical lack of designers is the limit for developing. According to incompletely statistics there are 30 thousands furniture enterprises, but they all own only 3000 designers. Although this number increased now, but look at the international furniture enterprise, they even set up their own design company or center. Lack of Designer make the copy become the only way for surviving, just employ some computer drawer to copy the new style , and then begin to produce, almost all the company make the market in this way but not creation and brand style. The design similarity and the copy make the Chinese furniture has no competitive power in the international, has no position at the high level furniture. The Chinese furniture's export basically is base on producing for the foreign company, and very little productions have our own brand in foreign country.

The quality low

If we say the lack of the designer is one problem, and here we say the quality. The quality is also a big problem for Chinese furniture. Recently China consumers association publish the The complaints statistics for furniture Report 2011, said the quality and price stay at the front of all the complaints, the quality problems is 70%. When our production is still have the problem on the material, environmental protection and technical, the foreign brands have began to pay attention the function, the nature and the humanization. The problems of formaldehyde out of gauge, the safety for using and the shoddy for production and so on are still the focus, we have to say this is the situation what we are facing. What is the solution for all the problems? It is not easy to say, because it is a completely answer. May be after a long time it will change.



Data statistics

The furniture output statistics from January to February, 2011

From: China Light Industry Information Center

Date:2010-8-11

Name of commodity	January / February output (10 thousands pieces)	Month output (10 thousands pieces)	Growth rate Number same month last year (%)	Growth rate Number same period last year (%)
Furniture	10900	4907.24	19.86	23.13
Wood furniture	3200	1357.21	9.36	16.28
Metal furniture	6500	3006.96	27.85	29.37
Soft furniture	588.99	244.6	3.37	10.6

The furniture import statistics list from January to March, 2011

From: China Light Industry Information Center

Date:2010-6-18

Name of commodity	Unit	Month number	Month amount	January to March number	January to March Number amount	Number last year same period	Amount over the same period last year	Growth rate Number (%)	Growth rate amount number (%)
Furniture	10 thousands dollars	0.00	19820.1	0.00	49181.7	0.00	35897.4	0.00	37.01
Wood furniture	10 thousands pieces	31.36	2873.8	76.32	7281.4	58.75	5292.3	29.91	37.58
Metal furniture	10 thousands pieces	3.50	577.2	11.36	1355.7	11.03	1012.4	2.99	33.91
Plastic furniture	10 thousands pieces	4.17	92.2	9.01	249.1	2.51	128.4	258.96	94.00



Where we are?

Where we are going to?





Chapter Three

The traditional elements collection

During the process of researching, I turn to the traditional elements, I found this area is very interesting because of its enrich and changeful. I try to select more possible elements for use. There are elements from the area of architecture, design, culture, character Chinese, history, special professional vocation and so on.













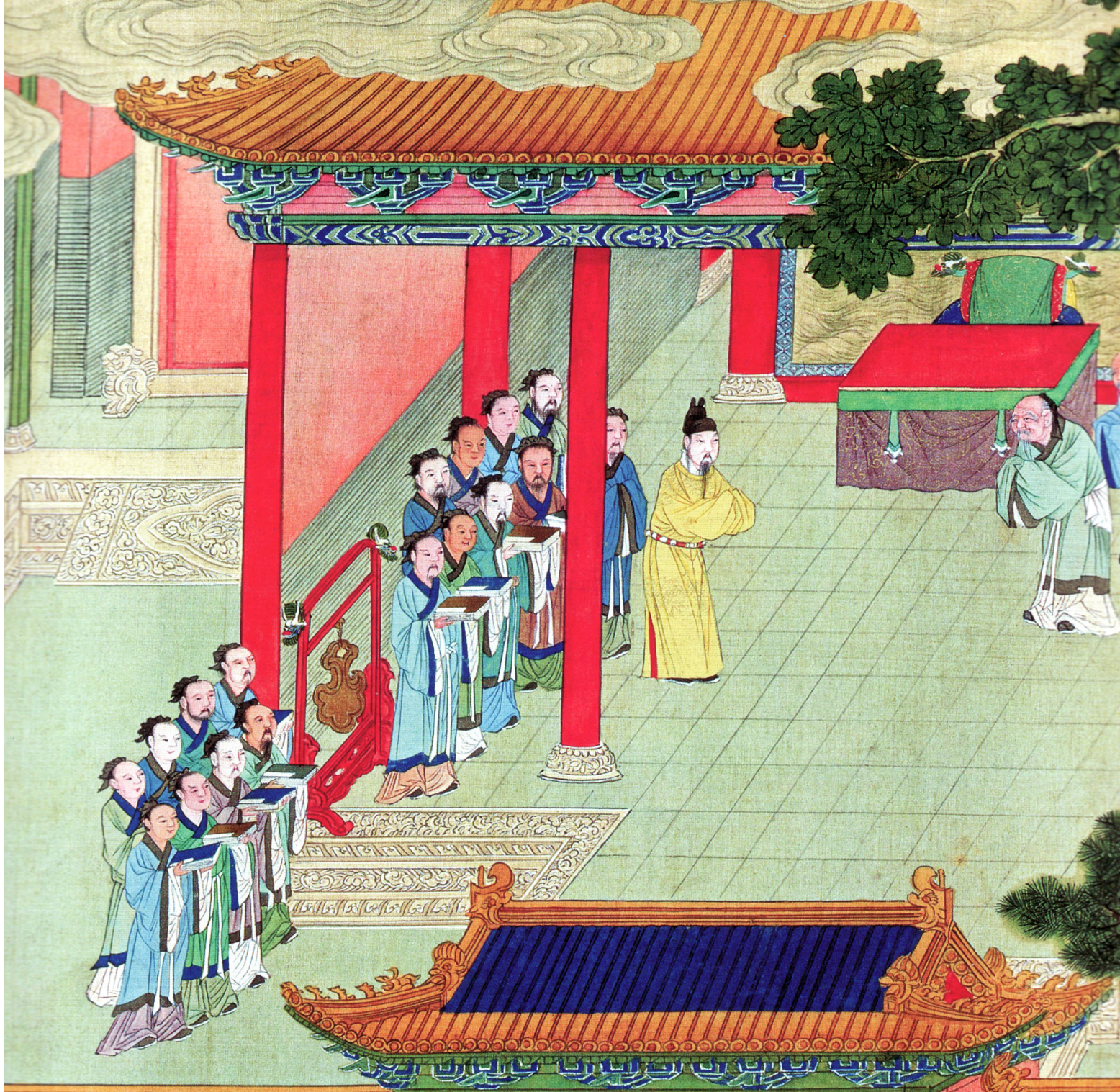




















秋暑多病獨征夫怨行路瑟：幽
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 石白雪集朝暮懷哉如金玉周
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 思與晤 遜學親交秋暑辭
 親將事于役目寫幽澗寒杉并
 題五言以贈之若招隱之意
 辛卯七月十六日倪瓚





















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傳統名品 真愛典藏 千古

江南城 祿年情

雅風 月情
感謝 感恩
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花月

戲月

天和人圓

金秋頌禮

皇象御禮

茶韻

荷月

吉祥

戲月

韻

風月

壽

春

秋

福

年

賀

年



Development

The existent Chinese modern furniture

The keywords

Collection of the Chinese furniture parts

Idea origin

The simily elements

Idea sviluppo

The existent Chinese modern furniture

I started thinking about my design after I learned more about the form, material, color and spirit in Chinese classical elements. So, I considered that if some of the details could be used to begin my design and enter into my idea. Then, I started looking for the possible details.

In the data, I began to see how the Westerns studied and learned for the Chinese classical furniture. Then, I saw the primary researches are concentrated on The Ming and Qing dynasties of China. And the Scholars study the Chinese traditional architecture and classical furniture based on previous studies, such as: William Chambers, Osvald Siren and Joseph Needham. Their studies are very objective and profound. One of the most meaningful and valuable research is made by Joseph Needham. He spent all his life to devote the Chinese ancient civilization. He used a lot of methods, like collecting the information, investigating, simulating, comparing Chinese and Western, and combining with internal and external history to study systematically. And he finished seven books with 34-volume "SCIENCE AND CIVILISATION IN CHINA SERIES" Cambridge University Press, this book introduces more clearly for Chinese architecture and furniture.

And also like Gustav Ecke, at 1896-1971, publish the "CHINESE DOMESTIC FURNITURES IN PHOTOGRAPHS AND MEASURED DRAWINGS", it is very useful for study the Chinese furniture. Ohter hands, because of the understand about the Chinese traditional furniture, like the famous designer Hans J. Wegner, he designed the Chair with the taste of Chinese elements. The works from the designer Yrjo Kukkapuro and Hans Olsen, also have done this kind of design.



What kind of design can satisfy the Chinese emotion? The classical? The Europe style? The new modern style or the new classical style?

Now the Chinese have the ability for accept the new things. I think in this situation I could use the traditional elements to create the new style, and challenge this kind of fuse. In modern Chinese area of design, there are some examples using the traditional elements, some use the traditional vein, some use the traditional form and some use the spirit and so on...



Here let's have a look the chinese modern furniture design, this serie is design by Mr. Liang Zhitian, he used the traditional elements of square frame to show a emotion of Chinese, that is Chinese's square and cycle thought about the life. This serie is named Mei Zhao Yi Zhi .

After analyzed some good furniture design, I think my way should using the possible Chinese elements and be connect with the modern style and the technology, finally do a serie furniture , it can satisfat the makert and the estheticism.







The keywords

Simplity line

Traditional element

Fluidity

Pure color

Nature metarial

Simplity line





Fluidity detail

Pure color



Traditional element





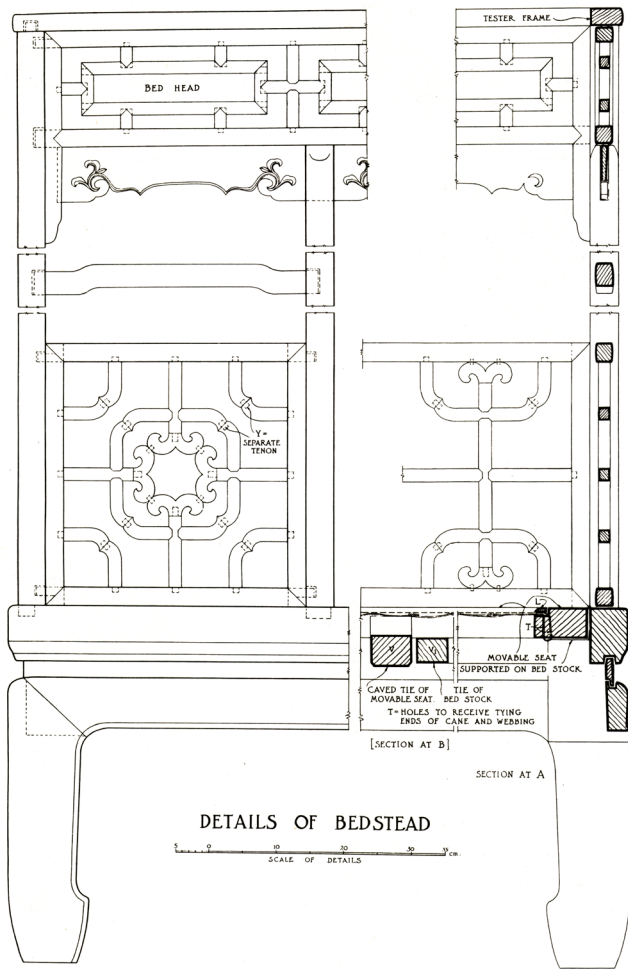
Nature metarial



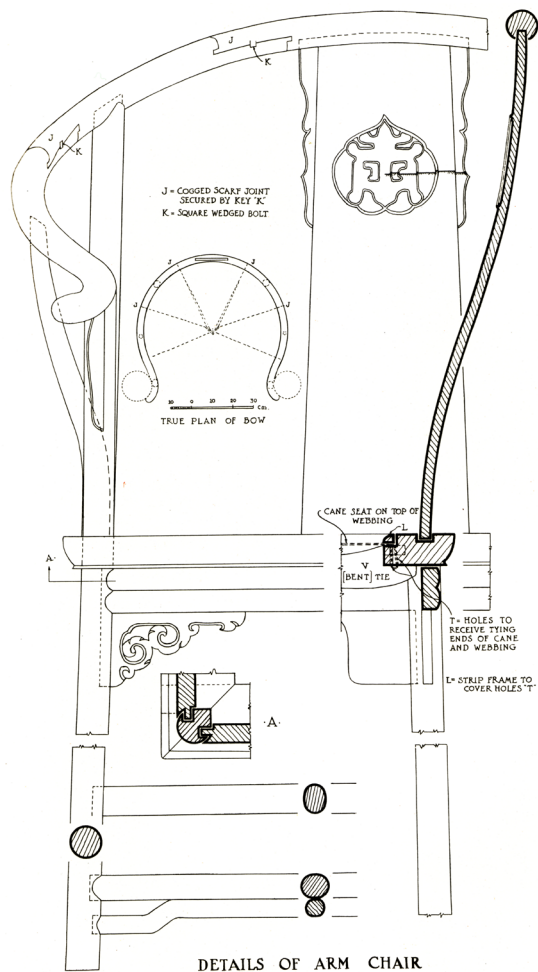
Collection of the Chinese furniture parts

When I had studied the traditional elements on chapter two, I am so interested in the small parts from the furniture. Because of they are so special, they are used for connect with each other and make the furniture more strong by the type of Mortise and tenon, every part is very delicate, I do a lot of work to research them.

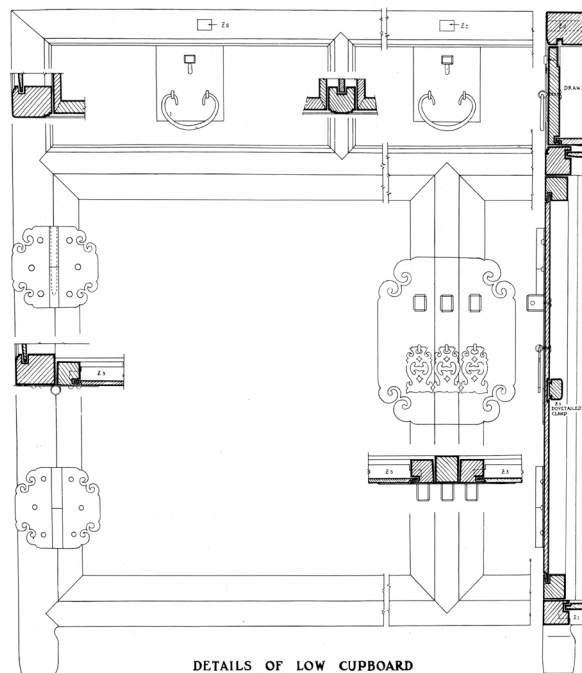
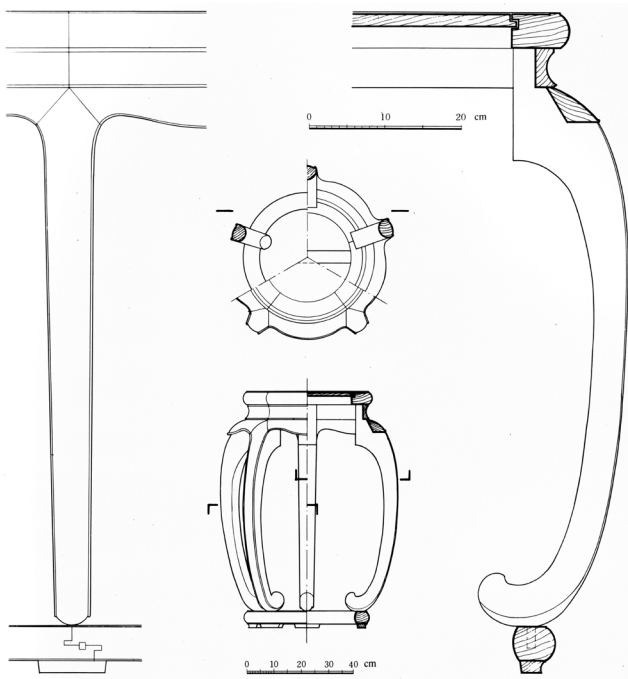




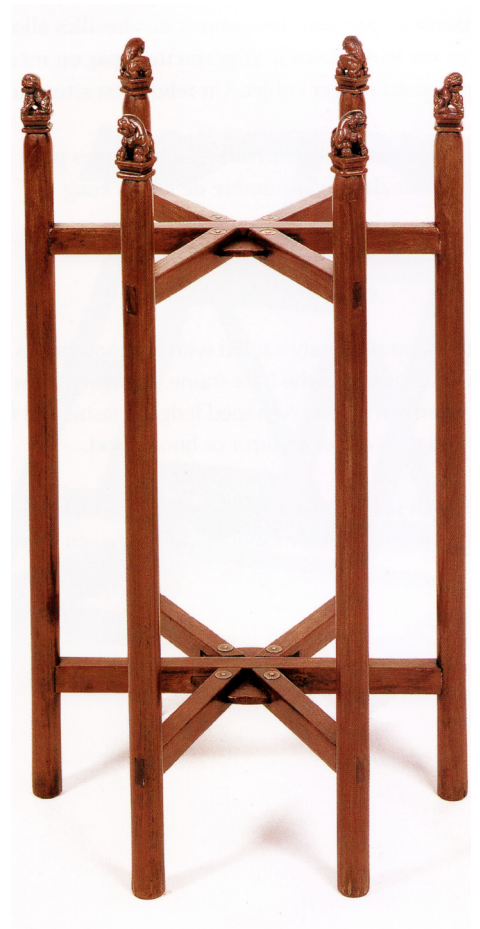
DETAILS OF BEDSTEAD

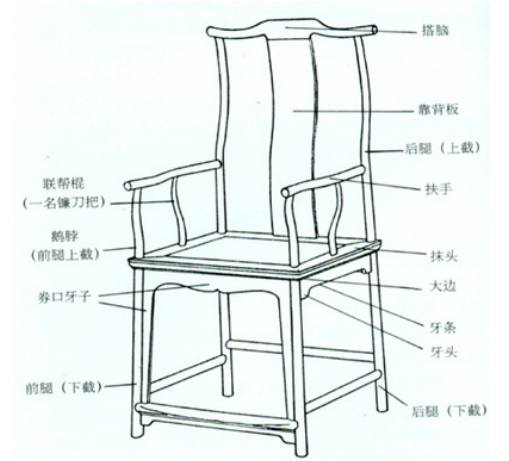
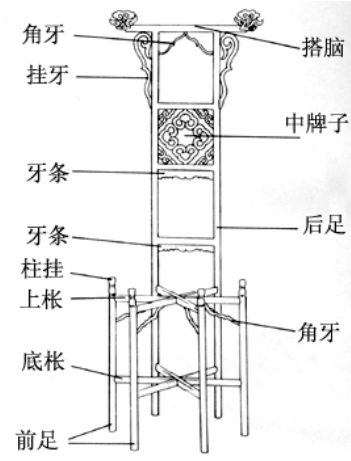
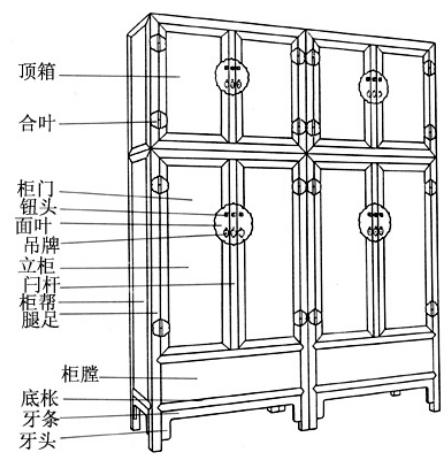
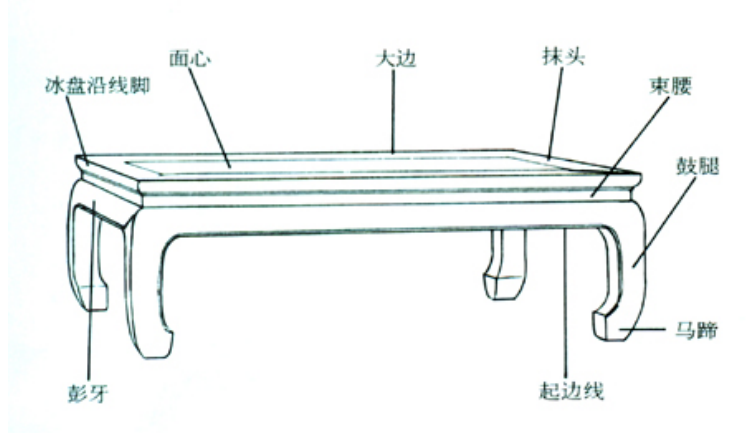
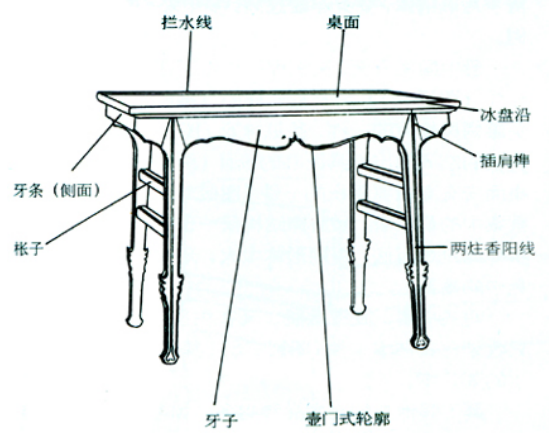
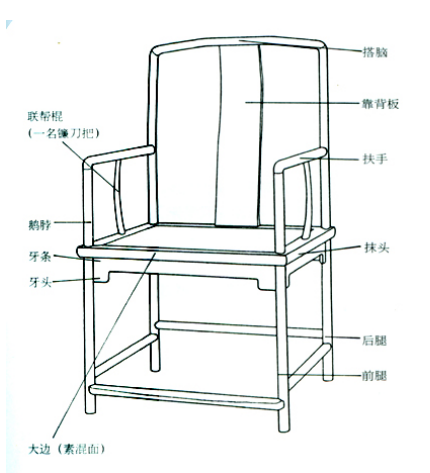
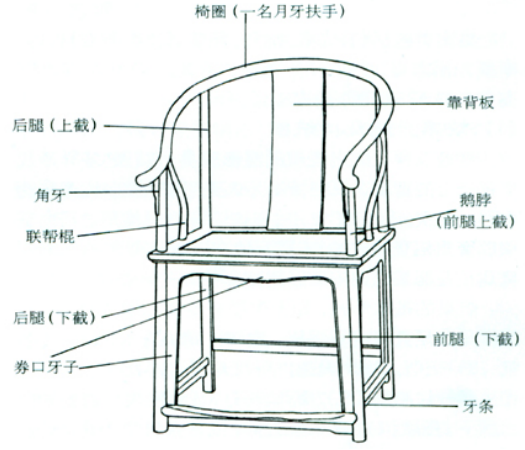
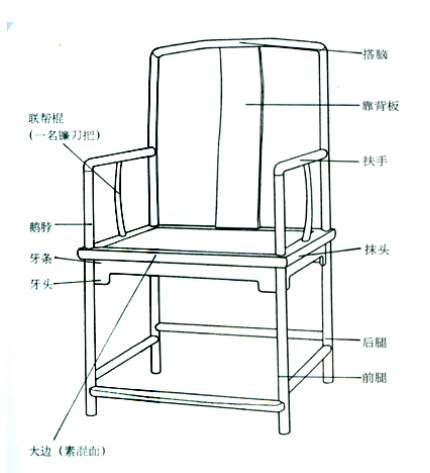


DETAILS OF ARM CHAIR



DETAILS OF LOW CUPBOARD





Idea origin

My idea starts very accidentally. When I study the Chinese traditional furniture pieces, I found the humpbacked stretcher which are used on many kind of furnitures. It is one structure in the furniture body and also is used as the decoration. It is originate in Yuan dynasty, own the strong form and beautiful lines, the large numbers of forms and fantastic proportion and detail. It came from the traditional architecture, in that area its name is Luo Guo Chuan, is one component as the support at the side part. I realize again that the origin of the Chinese traditional furniture is the architecture. I try to find more simility form from our traditional elements, the Great Wall, the Palace, the traditional grain and the Chinese Characters.

Back to the traditional furniture, on the desk, chair, stool, carbinet and bed, even the throne there are the humpbacked stretcher, began from the Yuan dynasty and popular in Ming dynasty, practicability ornamentallity are its characteristic. This is one great taste of elements from Chinese.





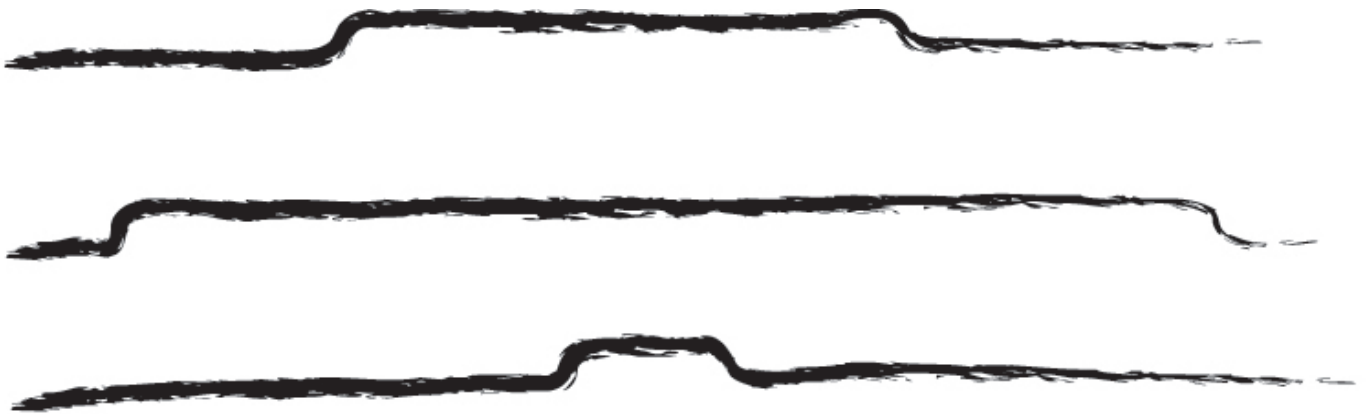
The simily elements



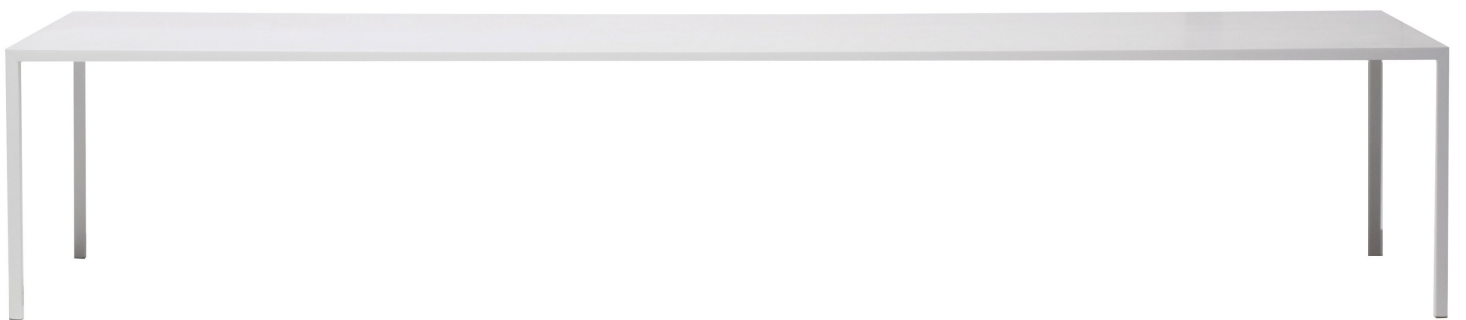
品



Idea sviluppo



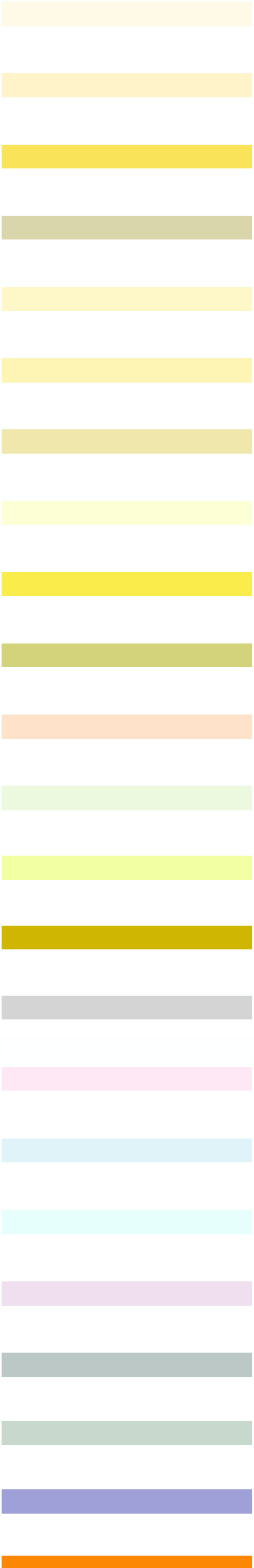
For my idea I want to use the basic form of the humpbacked stretcher as the element and then create the new style with this fantasitic line. For example, I will use it as the aperture between the two drawers, I will use it as the frame structure for the sofa and bed, I will use it as the detail of the desk and the chair. All the use on the furniture will creat one serie by humpbacked stretcher.





Inspiration





Light and soft colors





Material







Chapter Four

Concept

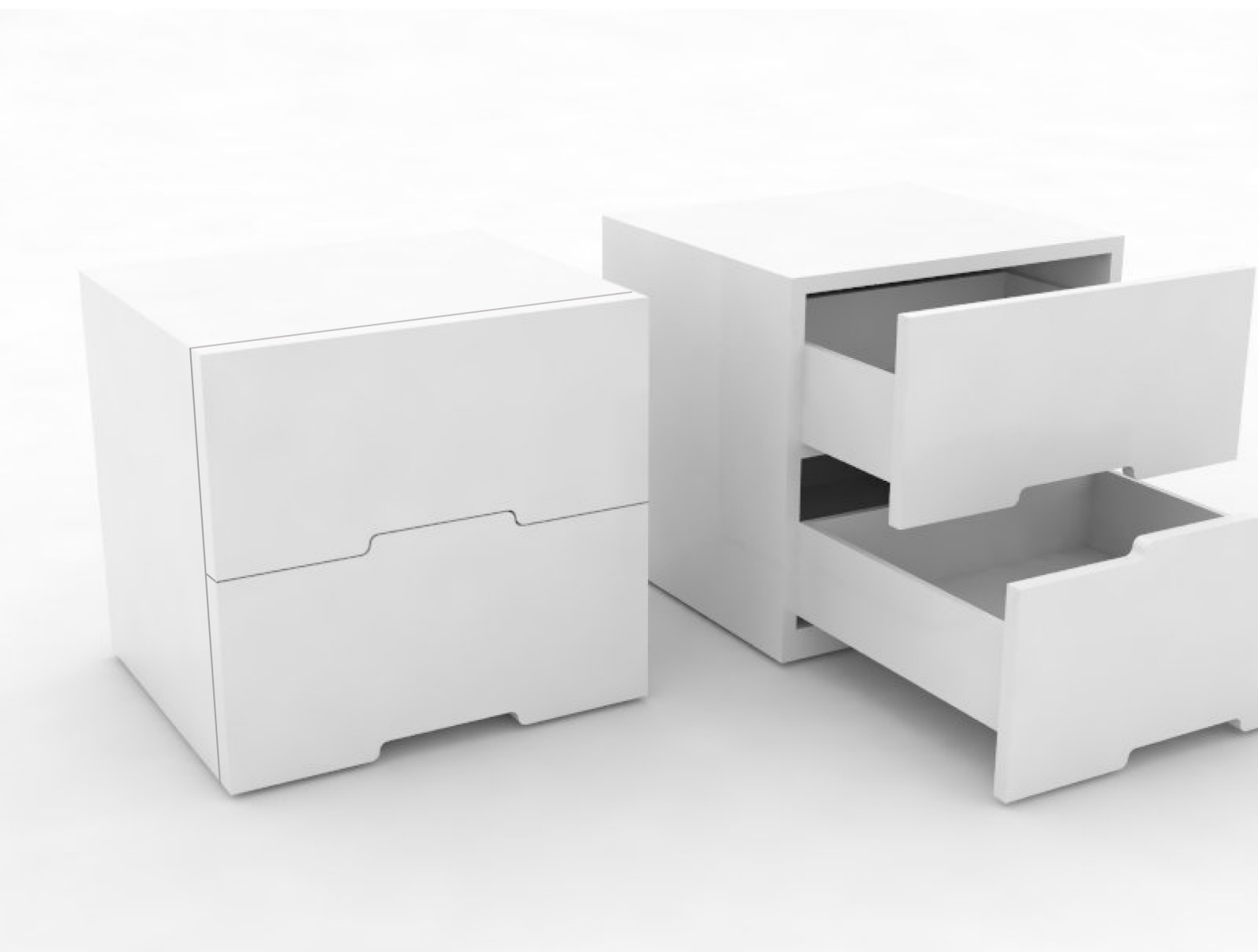
I have designed one serie by using my idea. There are armchair, table, a group of cabinet, the Tv cabinet, the bookshelf, the sofa and the bed. All the form own the form of Humpbacked stretcher. This serie want to show the feel of simply, fluidity and clean. And also like what I have said, it is a evolution from the traditional element. After I finish all the model, I thought about more material for produce and more possibility furniture by using this idea.





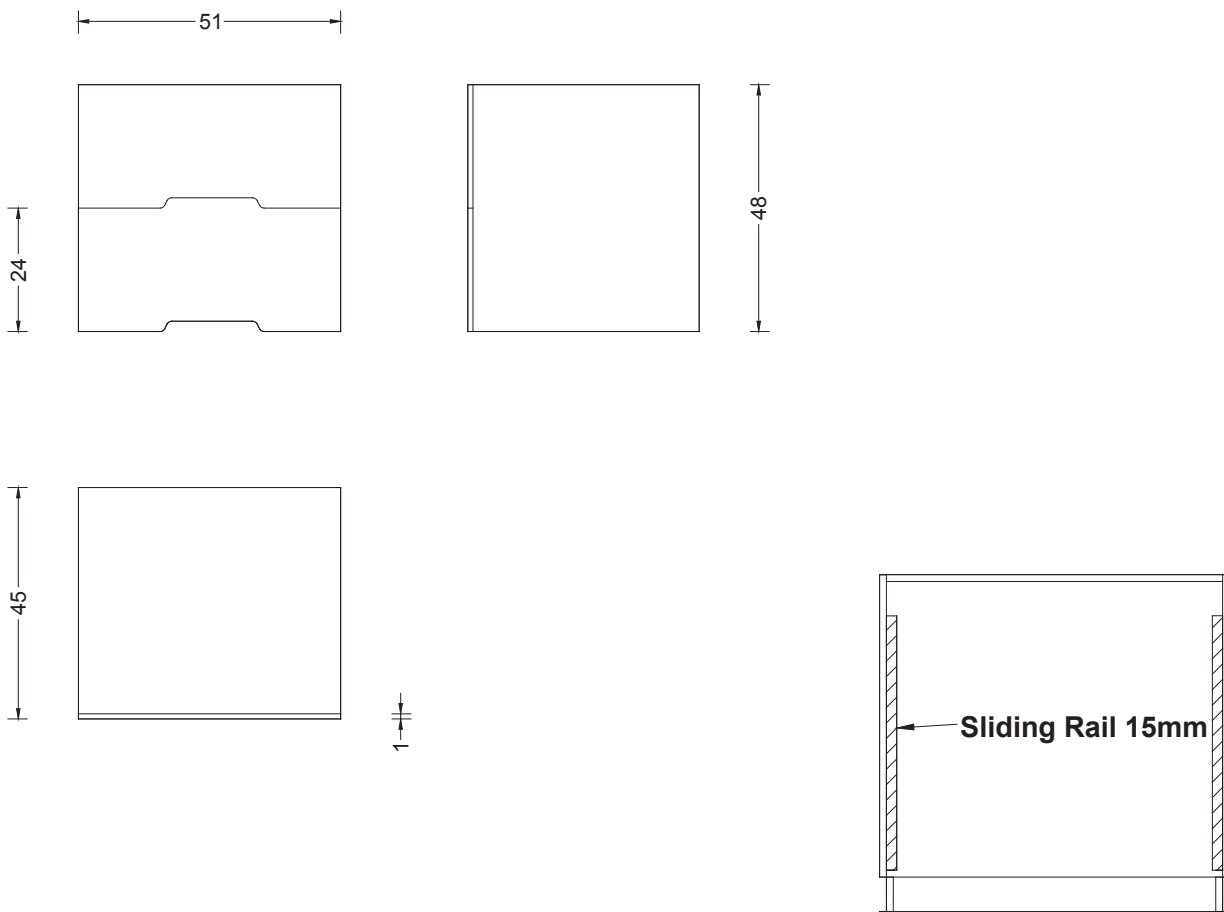








Dimension



Introduce

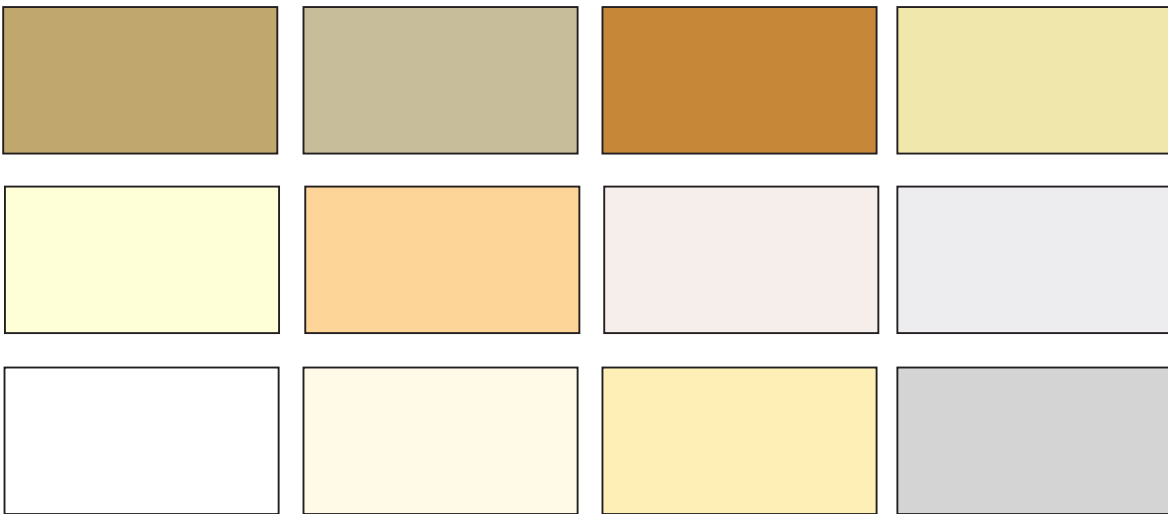
This little cabinet can be used in living room as the sofa cabinet and also can be used beside of the bed in the bedroom . The dimension I have done only one because the form decide its using situation. The small dimension is all right just for it.

The structure will be hide behind of the surface like the normal little end cabinet.

The drawer will choose the push-pull system for open.

Finishing

Shining Lacquered

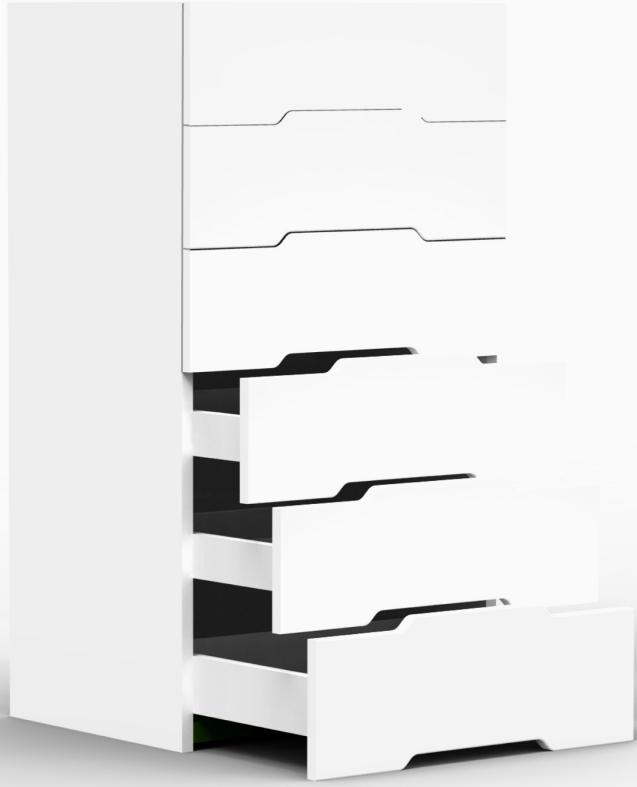


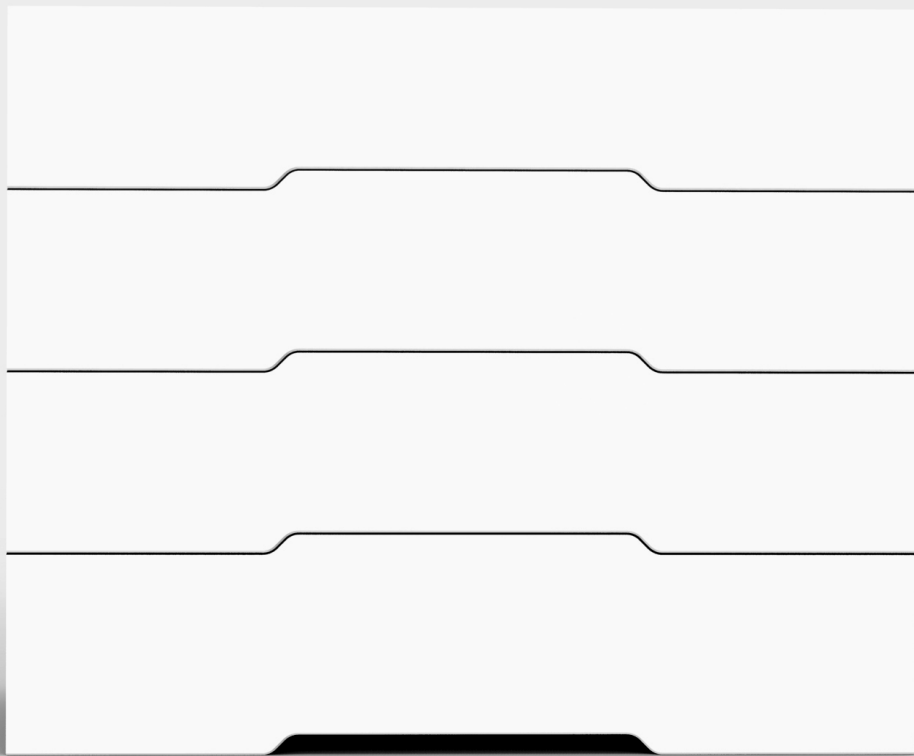
Wood / Veneer



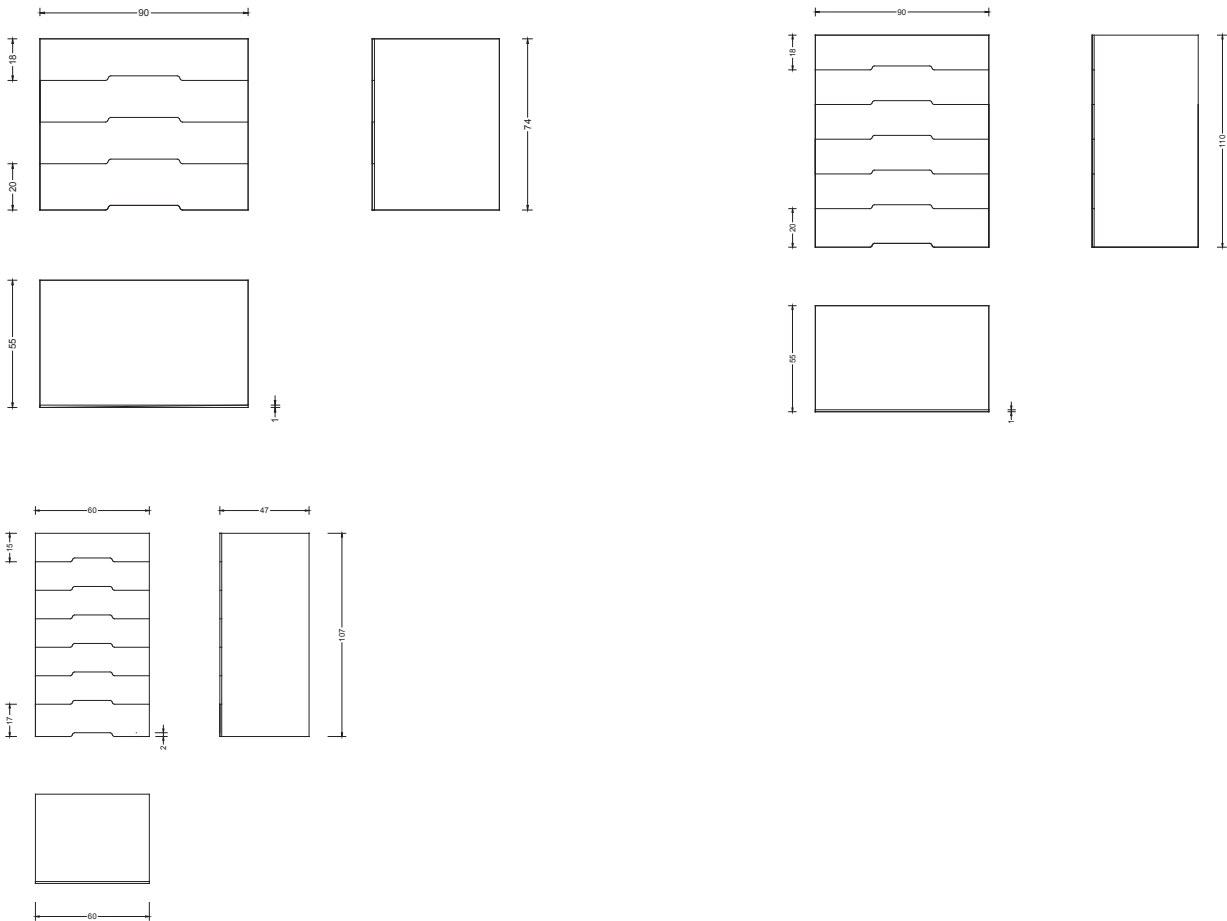
The color will chose the front in wooden finish with the light colors for showing the sense of clean and fresh. For exmapple the white color. Or chose the nature wood colors.

The material for the structure here is original wood with some metal components for fixing the parts of the wood, but they are hidden inside. The surface of the cabinet use the finishing technology or the veneer.





Varieties

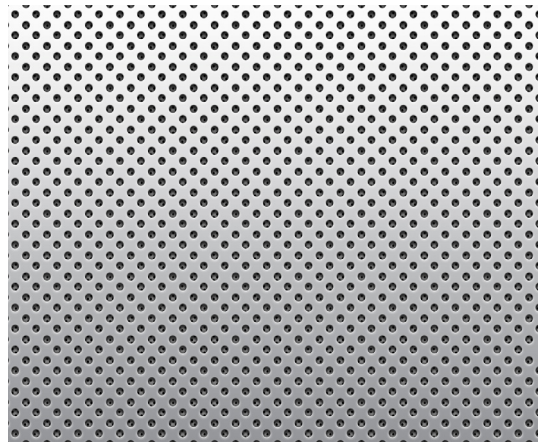


Introduce

The varieties carbinets are made by differents dimentiones and differents using place. They can used on the bedroom, the living room, the kitchen even the bathroom. Even for the requestes can make more dimention.

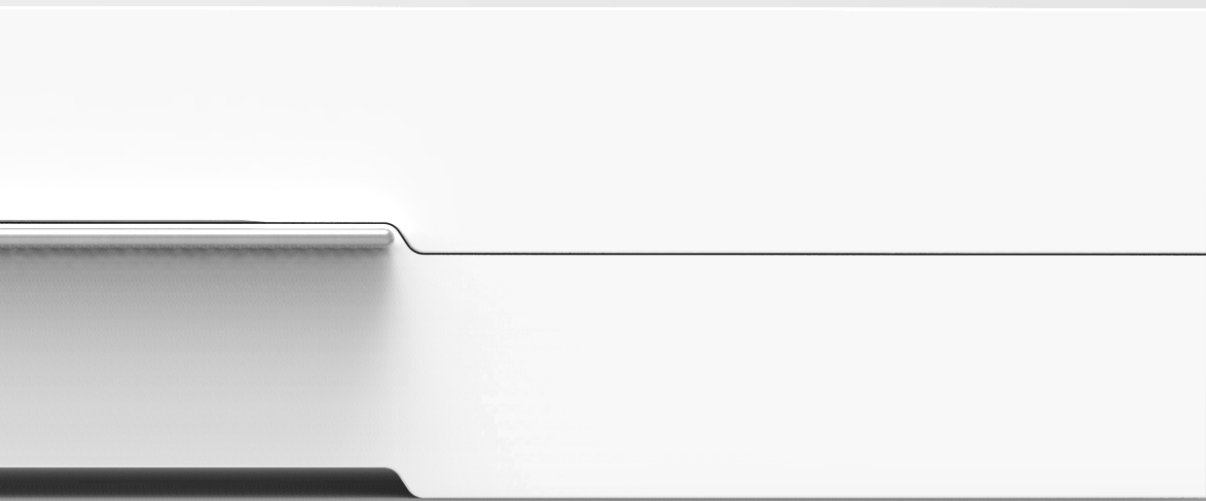
The structure will be hide behind of the surface like the little carbine I have introduced.

The drawer will choose the push-pull system for open.

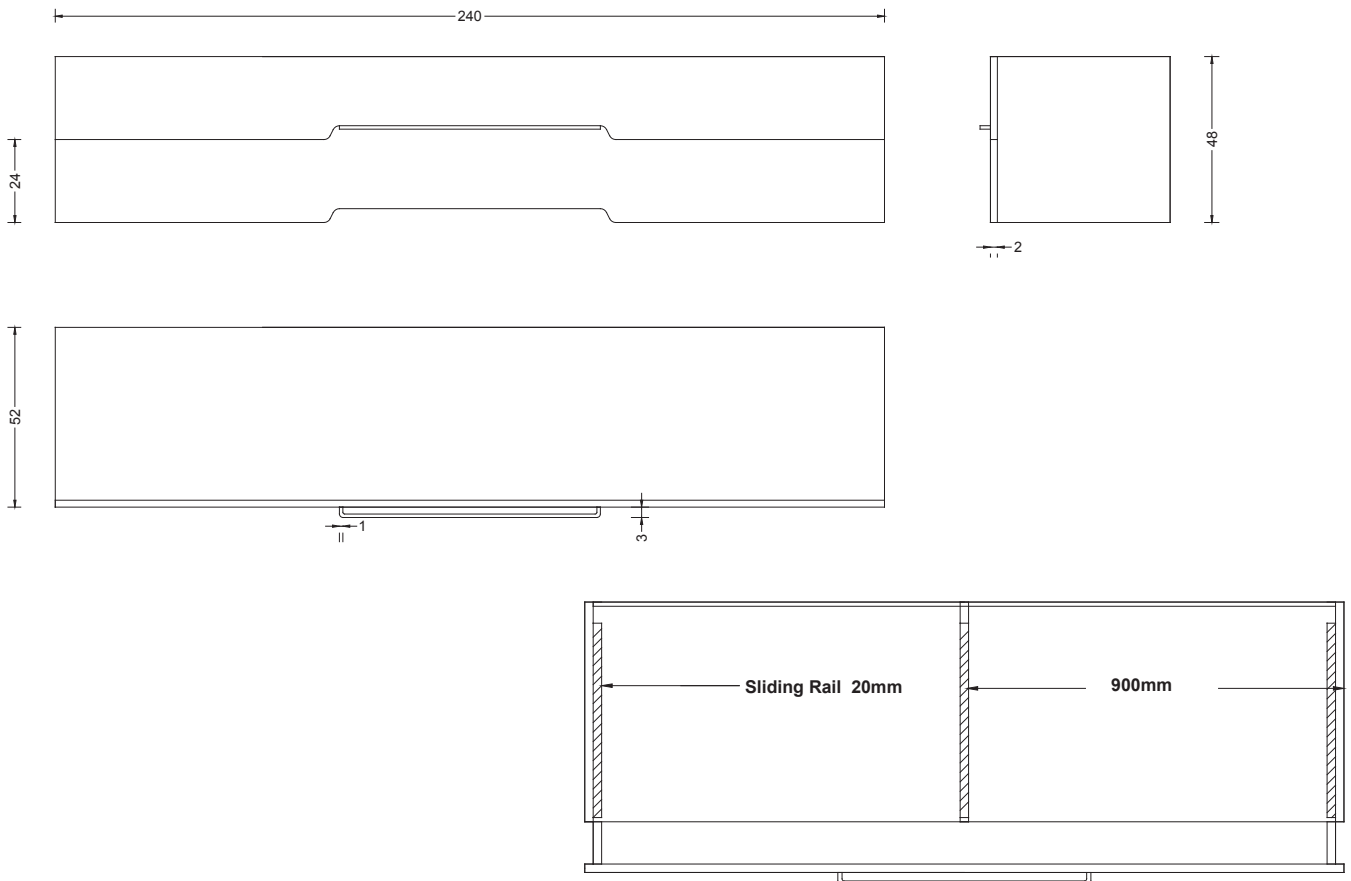


The colors and the material are same with the low little bed carbinet. But the system I think it should own more choice about the colors and materials, for example someone like the dark or red color, it is possible for produce, someone want the material glass or the metal, it is possible too.



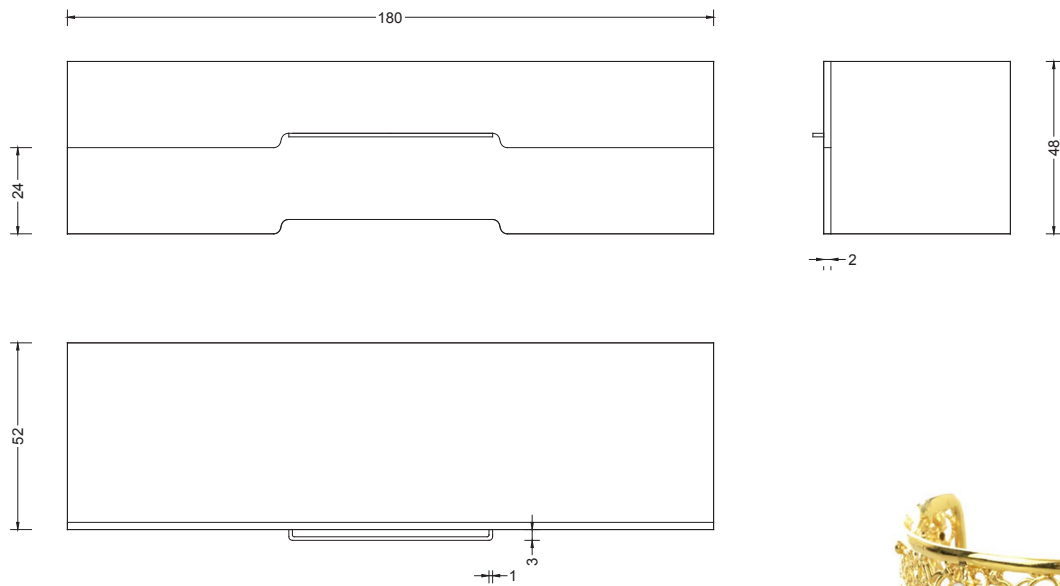


Dimension



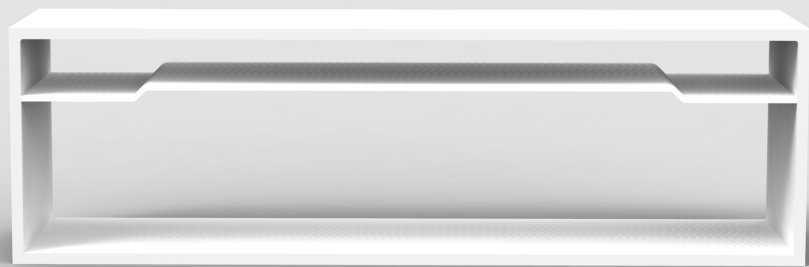
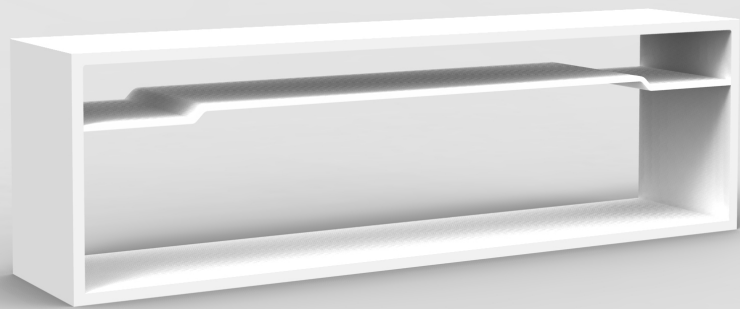
Introduce

The Tv cabinet can be used in living room and bedroom . The dimension I have done two, the small one may be used in the bedroom. The large one can be used in the living room. The structure will be hide behind of the surface like the normal little end cabinet. Because of the weight, it use there strong dump rail inside, there are tow tightly close the two side.The other one is in the middle of the Tv cabinet. The drawer can`'t use the system push-pull, because it is so large and high weight, so I made one handle with arch form in the front. Fixed in the front surface with the metal componets.

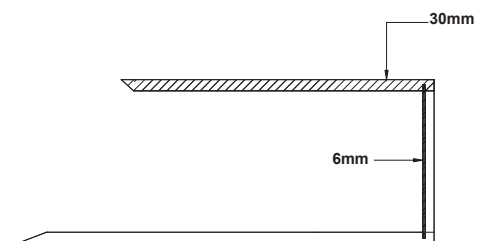
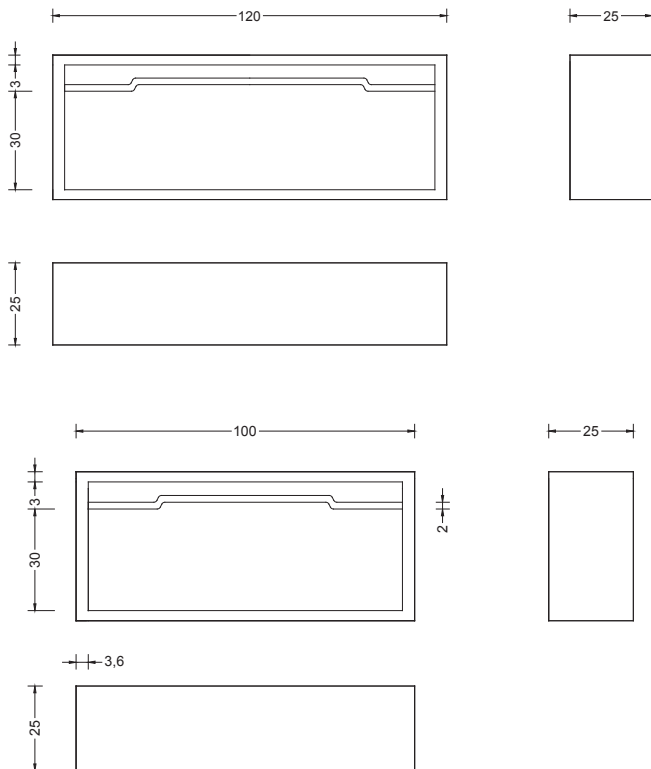


Use the same colors and the material like the other cabinets for the main body of Tv cabinet. Here join one metal component handle because the drawer is impossible for use the push-pull, it will broke the system because of the weight, the metal handle can use the material aluminium alloy or wood. The colors could be used like the color of the main body, or the shining color of polishing metal like the golden, silver.....





Dimension



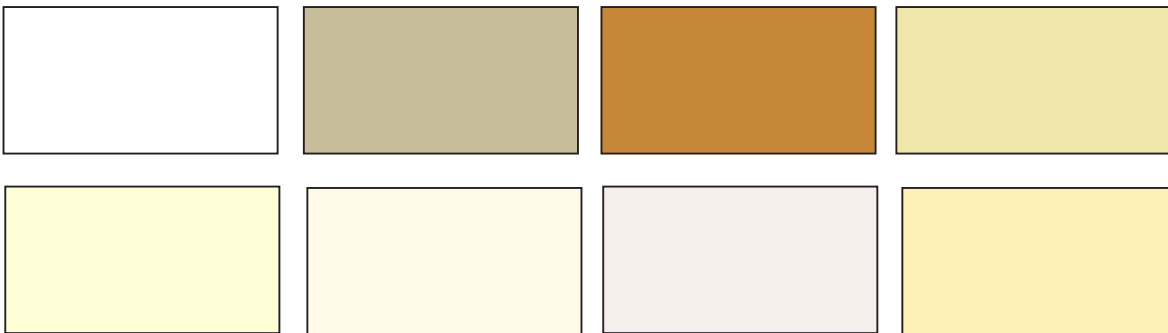
Introduction

The bookshelf is very small, there are two dimensions, 100mm and 120mm. It can't be too big because of the structure is not very strong and also need a component close two side for fix the bookshelf. It can be used on the living room and also on the bed room ,or we use it as one container in everywhere. Put on the desk or haning on the wall.

It should be hanged up on the wall on puttred on something as the containers. The bookshelf have two styles, there is one clapboard which separate for two space, the big space , we can put the book standing, the small one can put the book lying.

Finishing

Shining Lacquered



Wood / Veneer

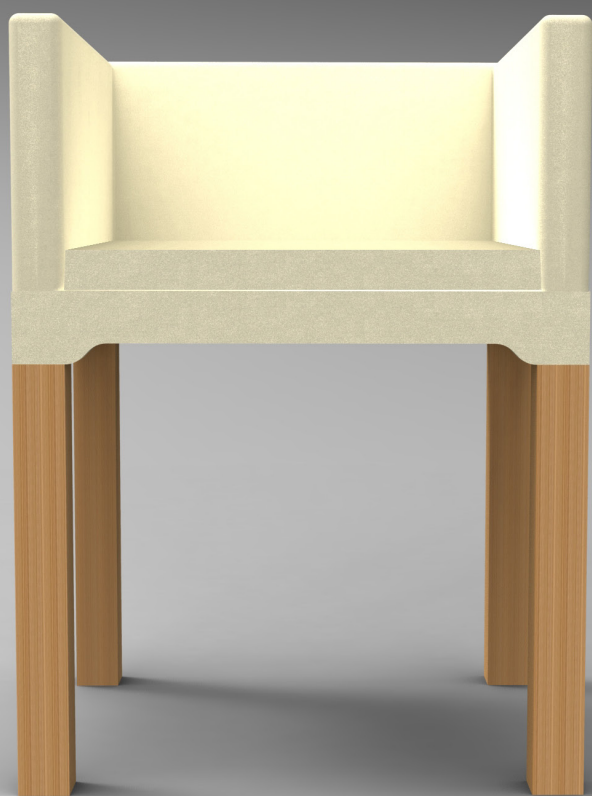


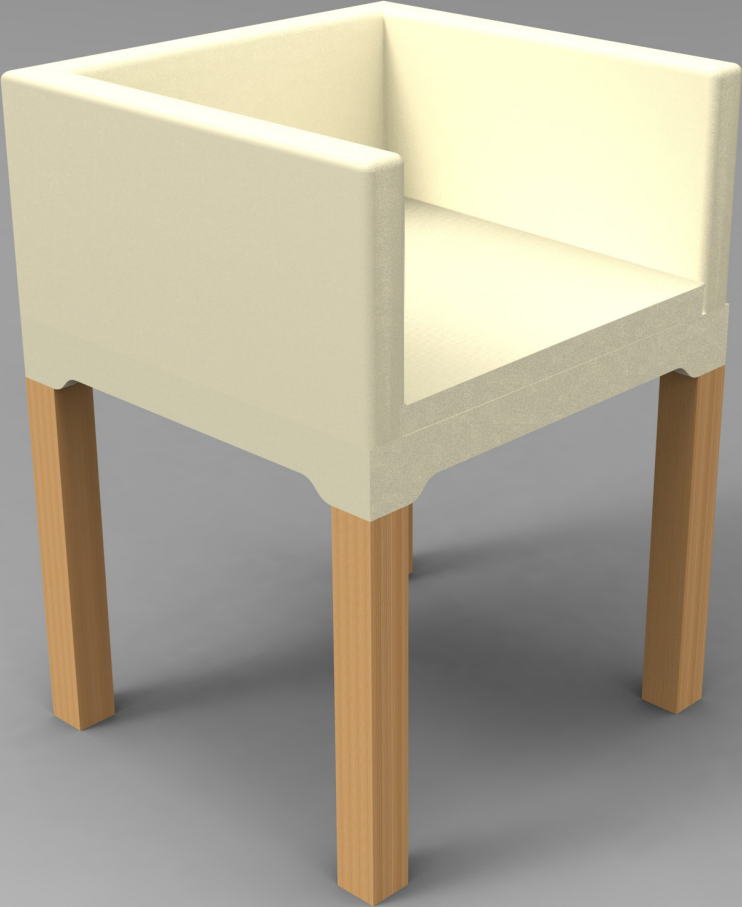
Metal



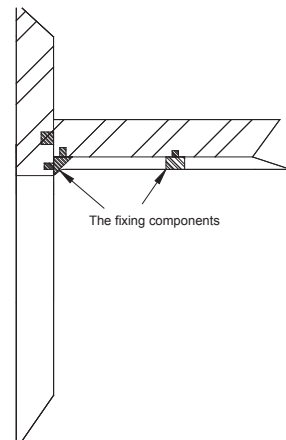
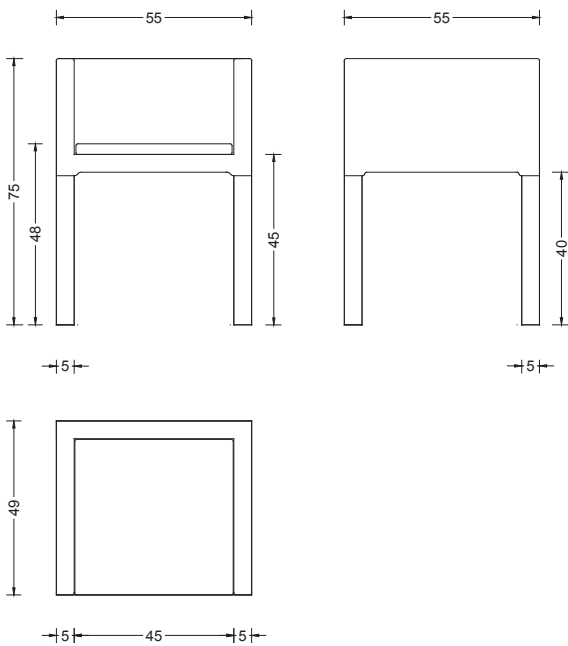
The color chose the light color. In all this serie I chose the light colors. For exmaple the white color or chose the nature wood grain colors.

The material for the structure here is original wood The surface of the bookshelf here I use the finishing technology or the veneer.





Dimension

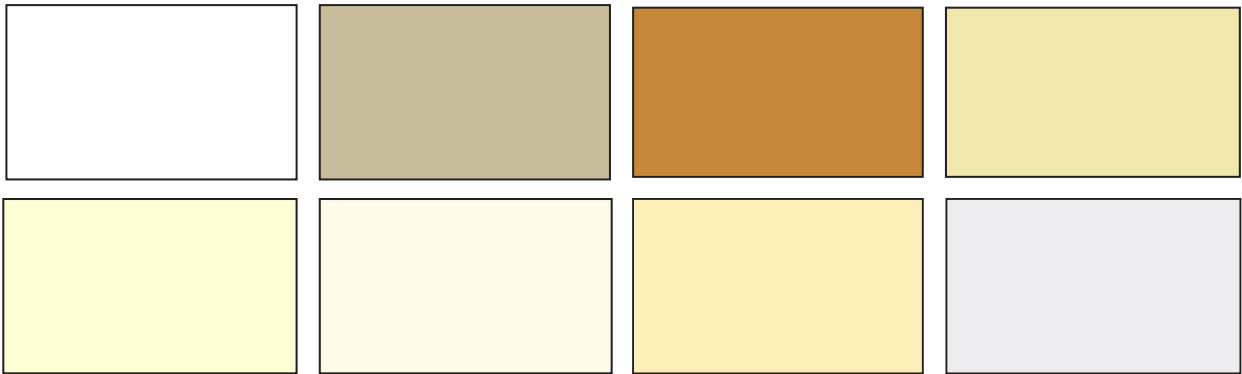


Introduction

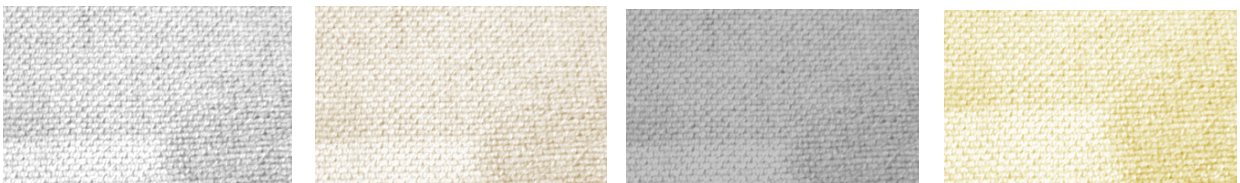
The armchair can be used at home for any parts. Because of the soft material and comfortable arm part which I use the fabric or leather as the coverture. The downstars, the legs will used the material wood with the light color or the nature wood grain colors. It is one serie with the desk used in the dinining room or living room. It shows the sence of simply and comfortable. The arc detail form shows the Chinese elements which is my idea. And the more material for choose make the armchair has more varities.

Finishing

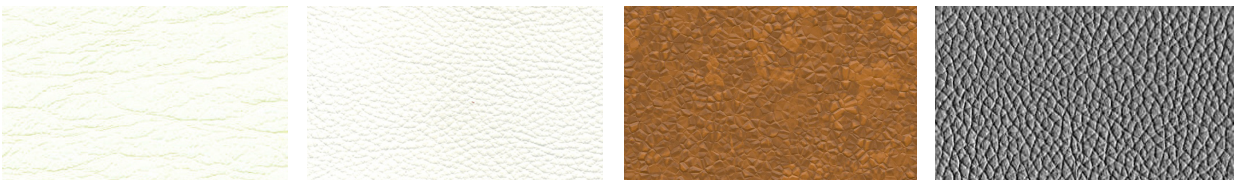
Shining Lacquered



Fabric



Leather



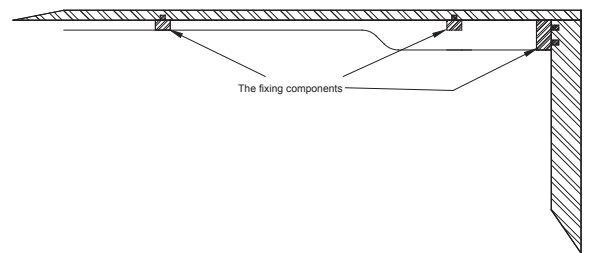
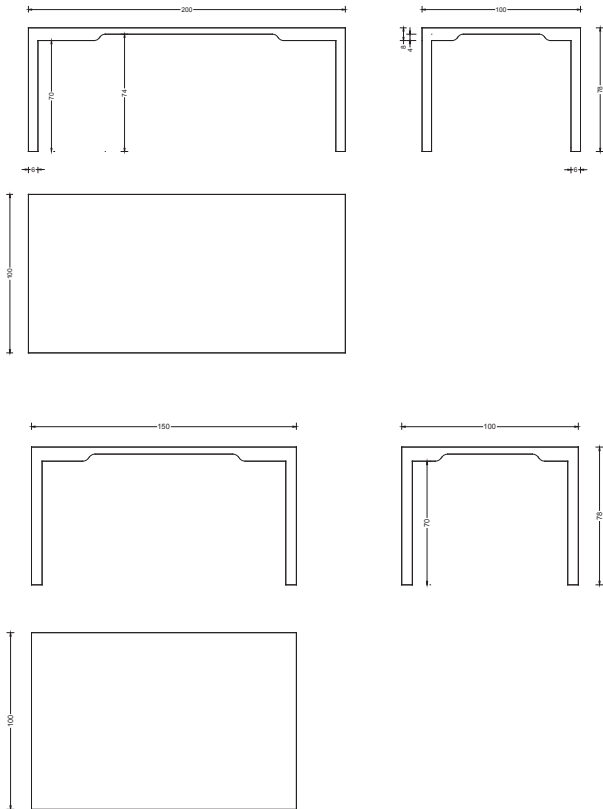
Wood







Dimension

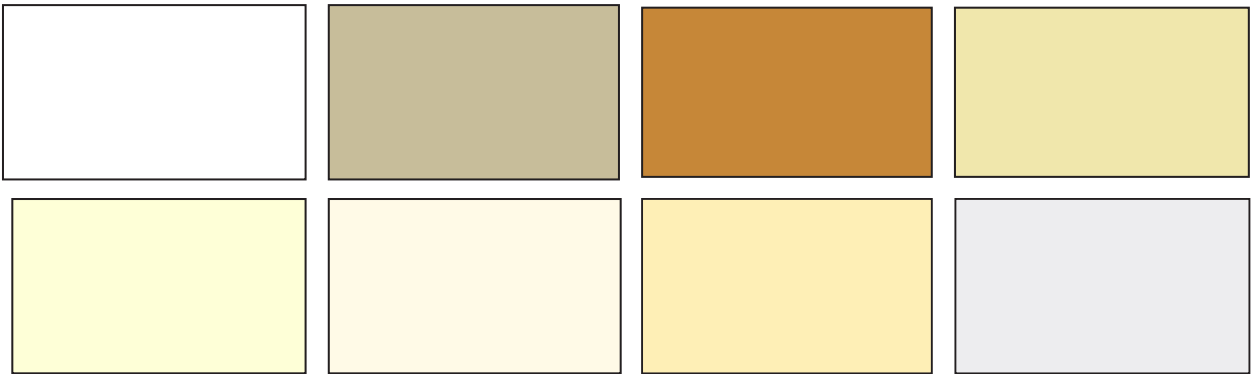


Introduction

This table was the first form I did from all the furnitures which I had done, it looks simple and very integrative because of its material, the element I choosed shows one flowing feels and natrue taste. Like what I said in my thesis the people should merge with the world(nature). The color for this table should be light and soft. The material should be the wood. After this condition, the feel natrue will come out.

Finishing

Shining Lacquered



Wood

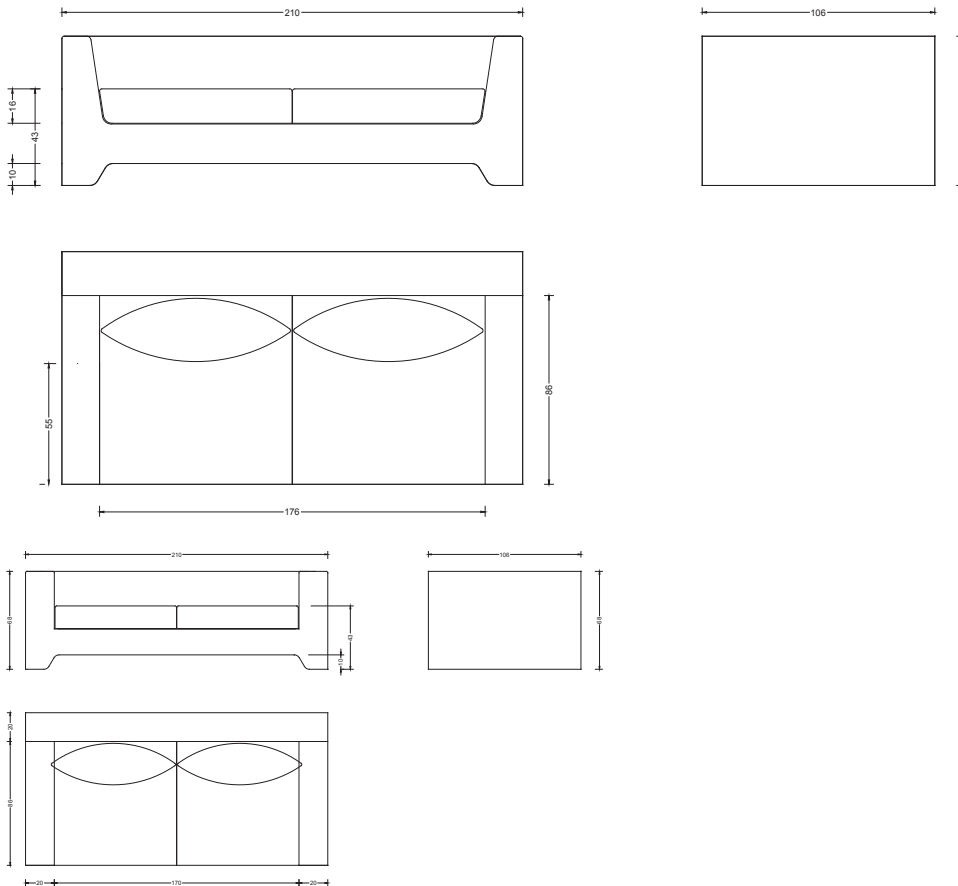


This table will be used in the dining room and living room coordinate with the armchair which I had introduced before. I do two dimension with 1500cm and 2000cm, dependen how many peoples for using it. The corners hided the components which are used for fix the table.





Dimension



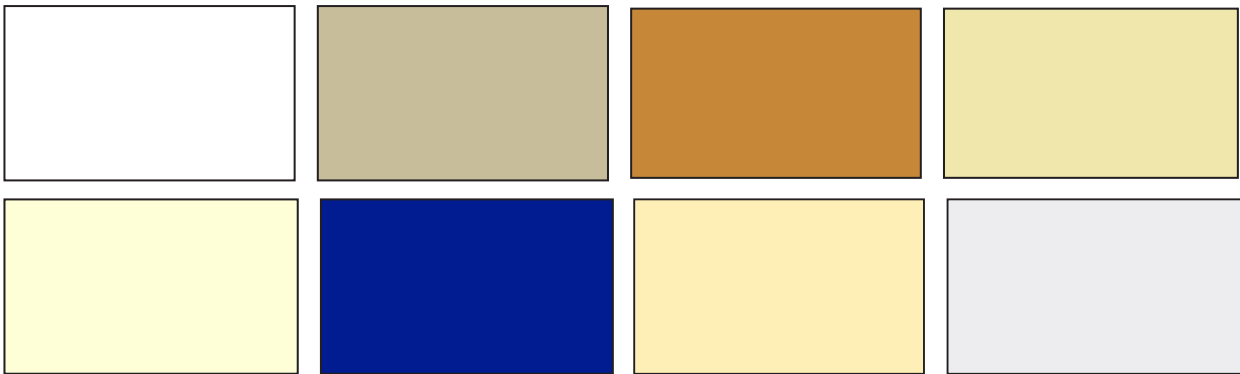
Introduction

The sofa use the same element like other furniture, and the different is the whole sofa is has the coverture with the material, inside use the wood as the framework for support, the outside, I chose the Fabric or the leather or even finishing lacquered.

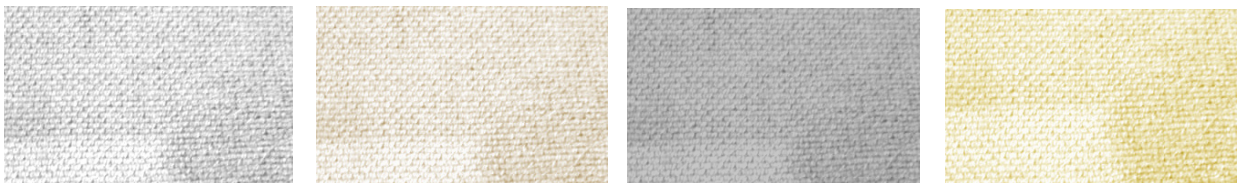
This style just has the dimension small. Because when I think about the dimension, I try the longer, but the arc form become ugly and not naturely. The element in the longer one is out of shape, the sence change. For this reason I did one dimation and two forms.

Finishing

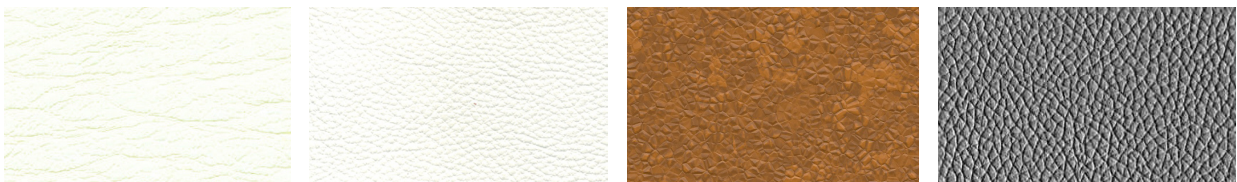
Shining Lacquered



Fabric



Leather



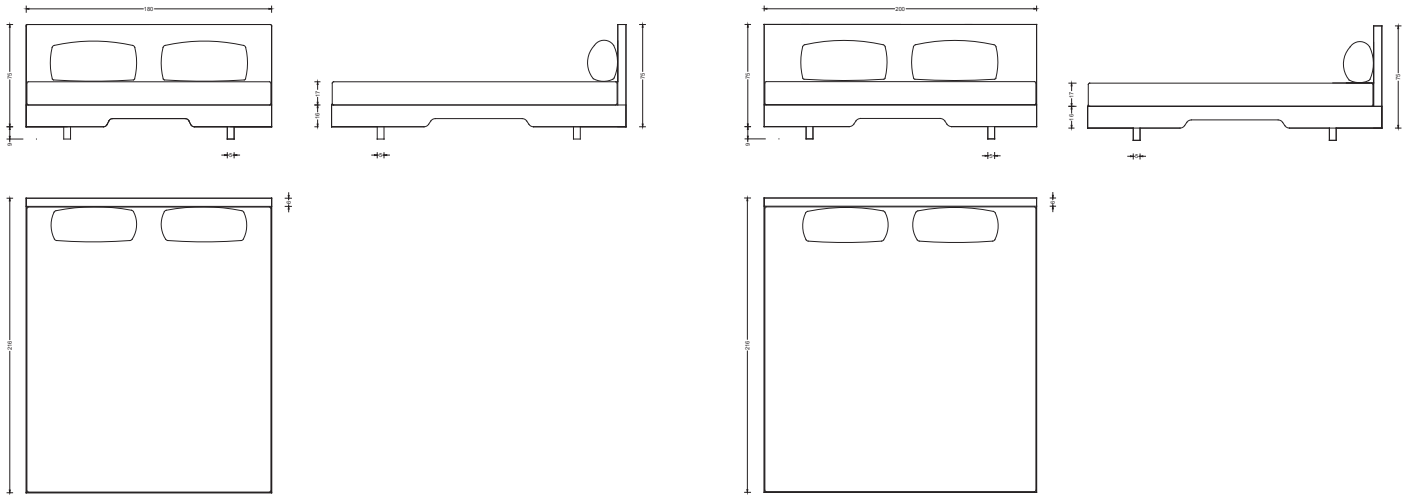
Wood







Dimension

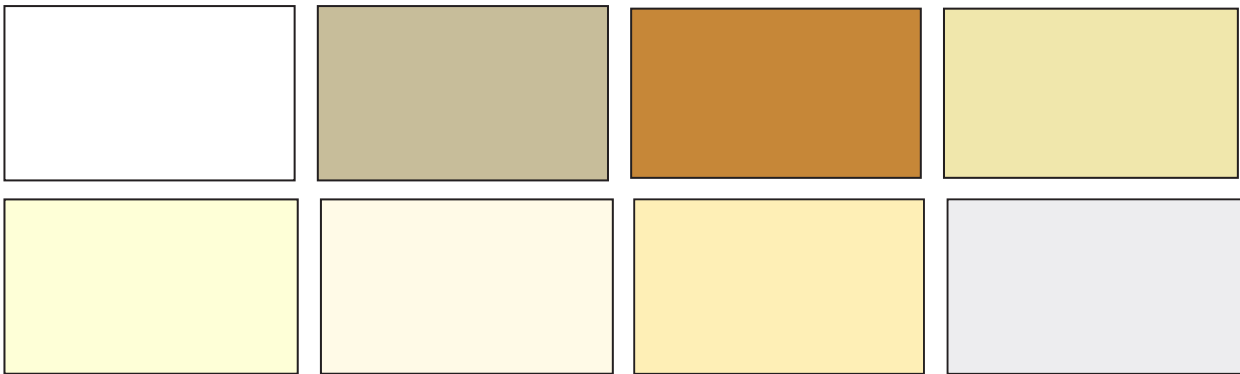


Introduction

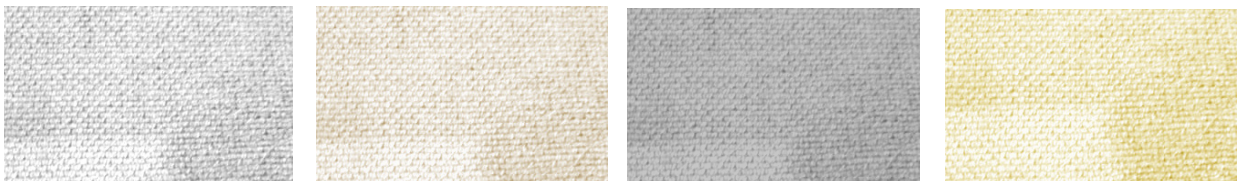
There are two bed dimensions for 180cm and 200cm, the surface will use the wood with light finishing colors or nautre wood colors. And also I choose the fabric and leather as the coverture for the whold bed frame. All the material color should be light, ensure be coordinate with all my other furnitures , for example the bed cabinet. The light colors can give us the quiet and comfortable feels. This is why my serie design choice is always light color.

Finishing

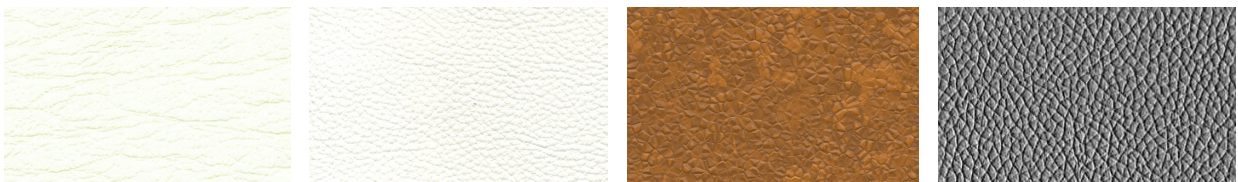
Shining Lacquered



Fabric



Leather



Wood



SOURCE

Biography

WGustav Ecke, "Chinese domestic furniture on photographs and measured drawings",
Dover Publications, Dover ed edition, 1986

Lark E. Mason, Malcolm Swenson and Kimball-Jenkins Estate, "Classic Chinese Furniture",
concord new hampshire, USA, 2004

Wang shixiang, "Ming shi jia ju yan jiu", san lian shu dian, Bei Jing, 2008

Wang shixiang, "Connoisseurship of chinese furniture",
Chicago : Art Media Resources ; Hong Kong : Joint Publishing, 1990

Lu yu zhang, "Chuan tong gu jia ju zhi zuo gong yi",
Chinese building industry press, Bei Jing ,2007

Hu wen yan, "Zhong guo jia ju jian ding yu xin shang",
Shanghai Ancient Books Publishing House, Shang Hai, 1997

Dale Russell, "Colour in industrial design", The design council, London, 1991

Ashby M., Johnson K., "Materiali e Design", Casa Editrice Ambrosiana, Milano, 2005

Manzini E., La materia dell'invenzione, Arcadia, Milano, 1986

Denise Domergue, "Artists Design Furniture"
Harry N Abrams; 1St Edition edition, Newyork, 1984

BERTOLA P, MANZINI E., "Design Multiverso. Appunti di fenomenologia del design",
Edizioni Polidesign, Milano, 2004.

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www.ikea.it

www.mdffitalia.it

www.poliform.it

www.bebitalia.it

www.kartel.it

www.nipic.com

www.baidu.com

www.docin.com

www.cnfa.com.cn

www.chunzaidesign.com

www.douban.com

www.antique-chinese-furnitures.com

www.wiki.com

Thanks

The process of this thesis teach me a lot of things and also take me many times, but now I look back all the thing I have done, I will say that was worth. The thesis is the last work for my life in politecnico di milano, so when it was finished I feel a little sad. As we always say: if there is start there must be the end.

As a foreigner lived in Italy, because of the situation I have changed a lot. During the study times in italy, my study and daily life get many help from my sorrounding people. Here I should thanks them all. Thanks for the guide of my thesis relatore from professor Alessandro Deserti. Thanks for help from my friedns and classmates. Thanks the Politecnico di milano gave me the chance for study in politecnico di milano. I want to say again:"Thank you very much for all of you."

