

Spring 2013

The furniture series - Series one Ii

Shu Wun Chan
University of Iowa

Copyright 2013 Shu Wun Chan

This thesis is available at Iowa Research Online: <https://ir.uiowa.edu/etd/4589>

Recommended Citation

Chan, Shu Wun. "The furniture series - Series one Ii." MFA (Master of Fine Arts) thesis, University of Iowa, 2013.
<https://doi.org/10.17077/etd.807yqx8m>

Follow this and additional works at: <https://ir.uiowa.edu/etd>

Part of the [Art Practice Commons](#)

THE FURNITURE SERIES – SERIES ONE II

by

Shu Wun Chan

A thesis submitted in partial fulfillment
of the requirements for the
Master of Fine Arts degree in Art
in the Graduate College of
The University of Iowa

May 2013

Thesis Supervisor: Associate Professor Monica Correia

Copyright by
SHU WUN CHAN
2013
All Rights Reserved

Graduate College
The University of Iowa
Iowa City, Iowa

CERTIFICATE OF APPROVAL

MASTER'S THESIS

This is to certify that the Master's thesis of

Shu Wun Chan

has been approved by the Examining Committee
for the thesis requirement for the Master of Fine Arts degree in Art at
the May 2013 graduation

Thesis Committee: _____
Monica Correia, Thesis Supervisor

Steve McGuire

Ab Gratama

Bradley Dicharry

ABSTRACT

In my M.F.A. thesis, I am going to talk about the process of revising my furniture series and designing new furniture in the series, which includes Chair ONE, Table ½, Bed ONE, and Sofa ONE. I am revising the area that didn't work very well.

In Chair ONE, I have revised the seating area to provide better stability. In Table ½, I have revised the support structure of the table. As I learned from the current structure, the tabletop start to bend as the tabletop dimension increased, as my table ½ has three different kinds of tabletop. I have added a second beam across the table legs to increase support to the tabletop.

In Bed ONE, I have added supporting structure for the bed frame. I noticed the plastic beam bent as weight added in a duration of time. A new supporting structure is needed to provide better stability of the structure.

In Sofa ONE, I have increased the dimension of the seating area. The plastic piece on the seating area isn't long enough to support the cushion. It doesn't provide a comfortable seating position for user. The only solution is to extending the seating structure. Also, a supporting structure added to better support for the seating area

Finally, I have designed a dining set for this series, which include a dining table and four chairs. The chair and the table are based on the design of my furniture series, but it will be a completely new set of furniture.

TABLE OF CONTENTS

LIST OF FIGURES.....	iii
INTRODUCTION.....	1
CHAIR ONE.....	2
TABLE 1/2.....	4
SOFA ONE.....	6
BED ONE.....	8
DINING TABLE.....	10
CONCLUSION.....	11

LIST OF FIGURES

Figure

1. Shu Wun Chan. Chair One. 2010. Drawing (Side view).....	3
2. Shu Wun Chan. Chair One. 2013. Drawing (Side view).....	3
3. Shu Wun Chan. Table 1/2. 2013. Drawing (Side view).....	5
4. Shu Wun Chan. Table 1/2. 2012. Drawing (Side view).....	5
5. Shu Wun Chan. Sofa One. 2013. Drawing (Side view).....	7
6. Shu Wun Chan. Sofa One. 2012. Drawing (Side view).....	7
7. Shu Wun Chan. Bed One. 2013. Drawing (Side view).....	9
8. Shu Wun Chan. Bed One. 2012. Drawing (Side view).....	9
9. Shu Wun Chan. Dining Table. 2013. Drawing (Side view).....	10

INTRODUCTION

For my M.F.A. research, I am revising design of the furniture and design new furniture for the series. For the revision, I have revised Chair One, Bed One, Table ½ and Sofa One. They are mostly adding supporting structure to stabilize the furniture. It has made the furniture series more unify and structurally more stable. For the new furniture, I have designed a dinning set. The dinning set includes a table and four chairs.

CHAIR ONE

The revision of Chair One has made the chair more stable compare to the pervious design (figure 1). I have done a long term testing on the chair and I noticed the seat does not support the chair stably on a long term. Connection has a potential disconnected. It is because different material has different thickness and the gap between two pieces does not match correctly. For example, the thickness of $\frac{3}{4}$ plywood is around .71 to .72. The thickness of the HDPE is .74. With mixed materials, there is no problem found during assembly. However, when a person sit on it for a longs period of time. The connection started to fail. It created a stability issue for the chair with pieces of chair came off. It created a design failure and the whole chair collapsed into piece. This had to be addressed.

I have revised the seat (figure 2) to improve connection and more supporting structure added similar to the table connection. The new design has solved the problem.

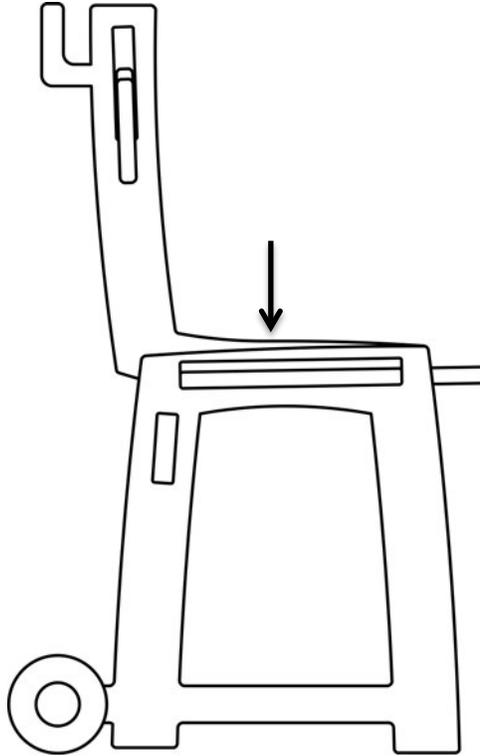


Figure 1. Shu Wun Chan. Chair One. 2010. Drawing (Side view)

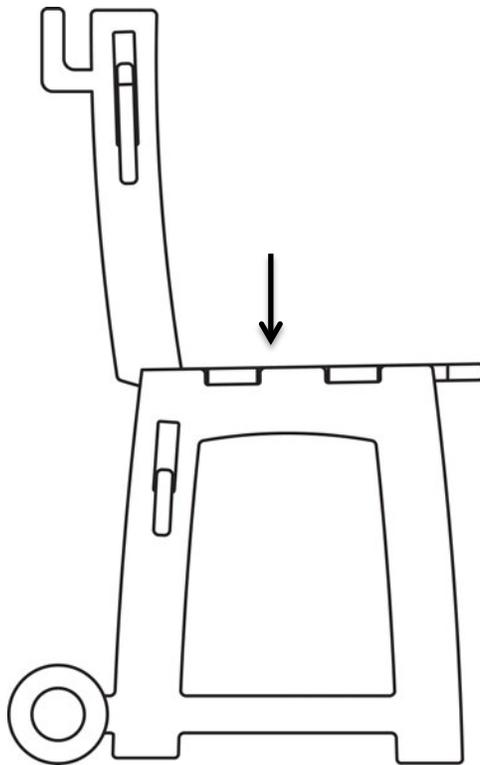


Figure 2. Shu Wun Chan. Chair One. 2013. Drawing (Side view)

TABLE 1/2

I have redesigned the table $\frac{1}{2}$ (figure 3). Even the design is minimal, but the change is significant. The pervious design (figure 4) work fine when you have a small tabletop. However, as the tabletop increased, the tabletop bent every time a heavy object such as a television was put on top of it. The solution is to increase the number of supporting beam (figure 3) from one to two on each side of the table The new design has solved the problem.

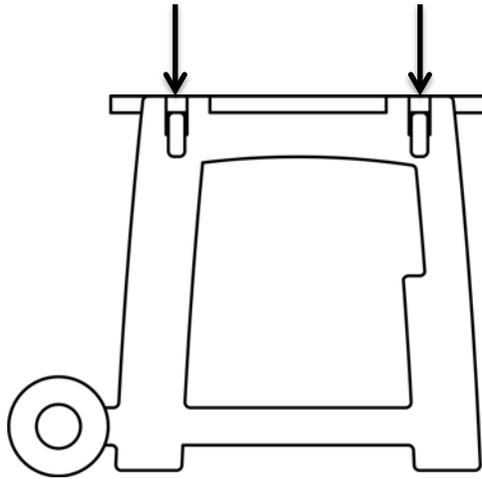


Figure 3. Shu Wun Chan. Table 1/2. 2013. Drawing (Side view)

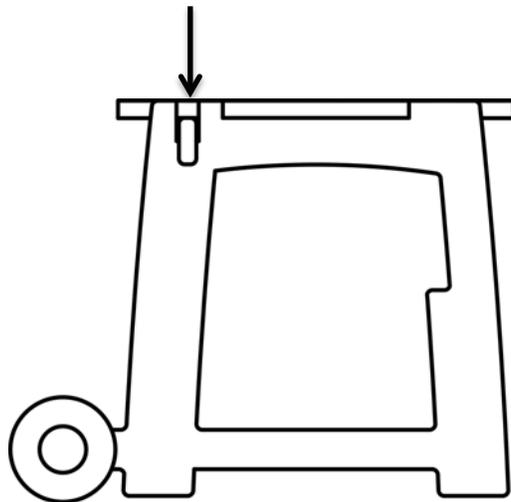


Figure 4. Shu Wun Chan. Table 1/2. 2012. Drawing (Side view)

SOFA ONE

Sofa One (figure 5) has similar issue with table 1/2. The redesign goal is to stabilize the structure. Additional support structure added on the back piece, it prevent the back piece being swing to the back. Also, more support structure such as horizontal beam added to provide better structure support on the seat. On the pervious design (figure 6), the seat bent when weigh added on the seat. Another change was the seat extended out to provide better support the consumer.

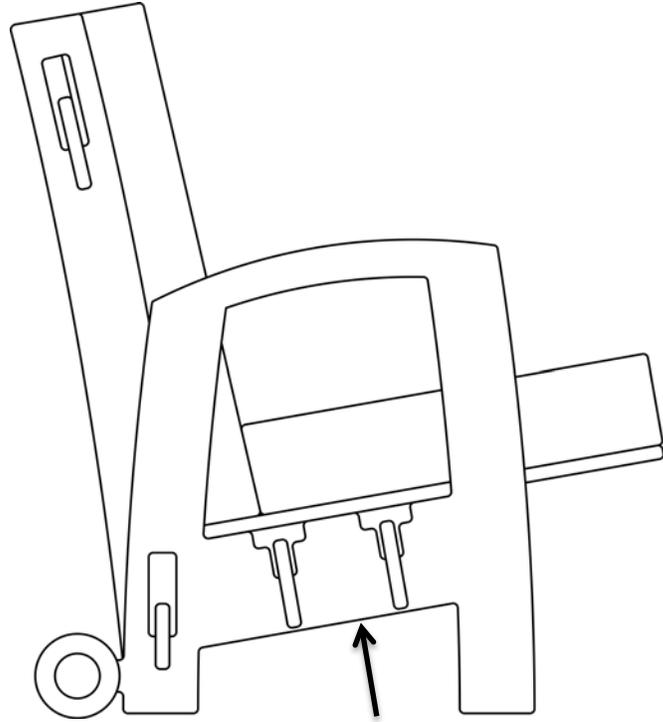


Figure 5. Shu Wun Chan. Sofa One. 2013. Drawing (Side view)

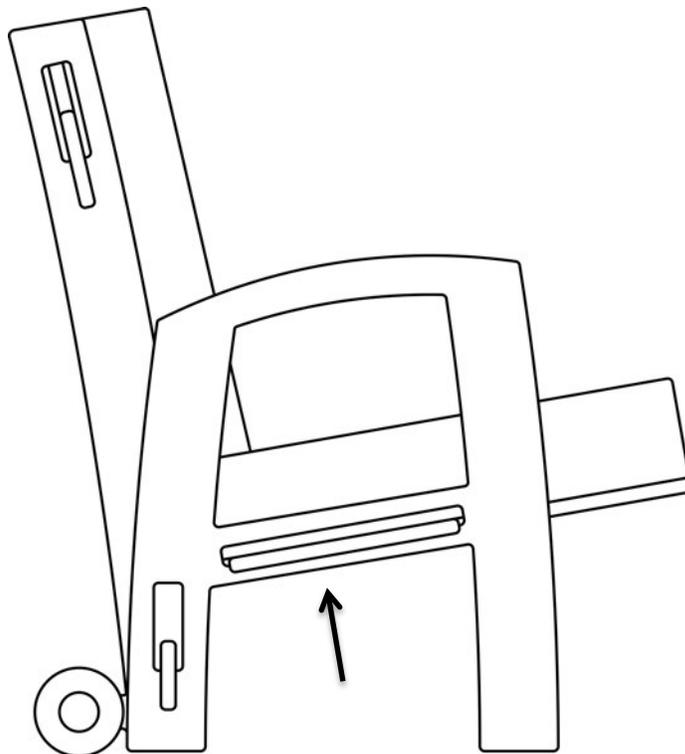


Figure 6. Shu Wun Chan. Sofa One. 2012. Drawing (Side view)

BED ONE

The bed base has been redesigned (figure 7). After a long-term testing of the bed, the bed base bent due to the nature of the plastic material. By adding a vertical support structure, it created a T-shape structure (figure 7) that spears weight evenly to the bed frame to prevent any bending. Also, an extra layer of plywood added on the bed frame to further support the weight of the re-designed bed frame structure. The only design elements was kept from the pervious design (figure 8) are the design of the headboard and footboard.

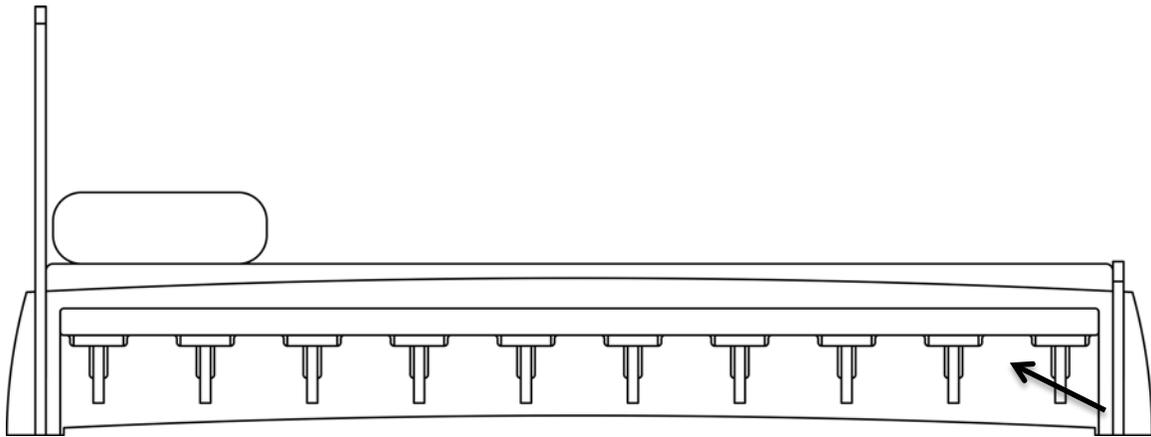


Figure 7. Shu Wun Chan. Bed One. 2013. Drawing (Side view)

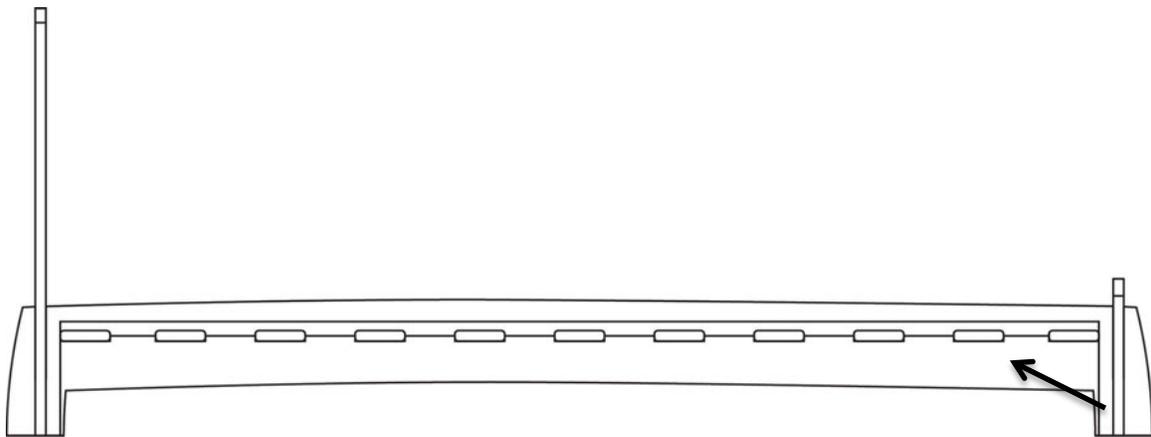


Figure 8. Shu Wun Chan. Bed One. 2012. Drawing (Side view)

DINING TABLE

Dining table (figure 9) is a new addition of this series. The design elements came from Table One. It is a square shape dining table that can be occupied by 4 people. The height of the table is 30 inches. The size of the tabletop is 40 inches by 40 inches. The table legs created by laminated two layers of $\frac{3}{4}$ " plywood. $\frac{3}{4}$ inch HDPE plastic was chosen to be the material of the table top. However, the tabletop was designed to be interchangeable. Material can be various depend of the function of the table being use. It can be plywood or bamboo. The table top can be design for specific game, such as poker, mahjong, board game or chess.

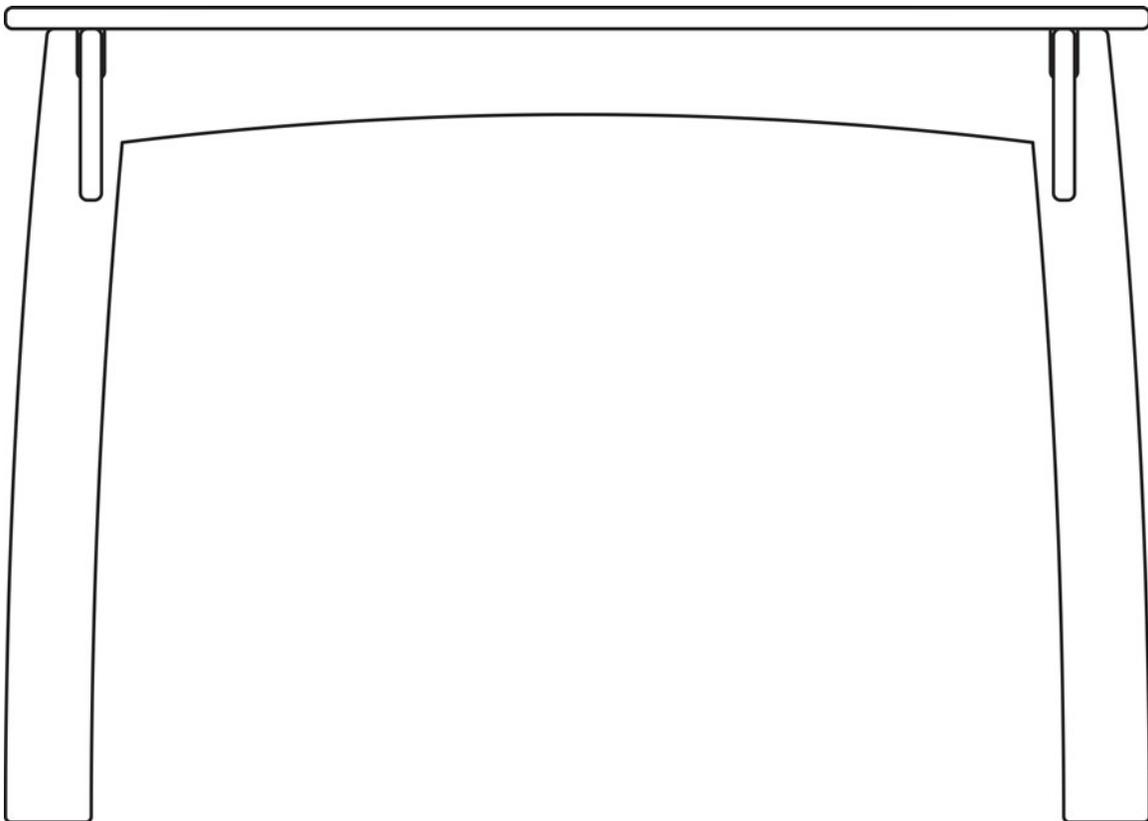


Figure 9. Shu Wun Chan. Dining Table. 2013. Drawing (Side view)

CONCLUSION

As the furniture series further expanding, new furniture and revision have been made, with minor adjustment the furniture is ready for mass production process. It can be sold. My plan is to mass process the furniture and being sold into market by creating a furniture company selling furniture locally and on the Internet. There will be challenges ahead, but I'm willing to take the challenge and take this furniture series way beyond just a research but put it into reality. I recently a slogan can sum up my passion about these furniture "Until our dream come true, I will fight on".