‘UN healthy tableware design

Wei-Mei Chiang

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MFA Thesis
‘UN Healthy Tableware Design

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2011-12 Spring

Advisory Committee
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Professor and Chair, Industrial Design
Chief Advisor
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Restart with appreciation

Returning to R.I.T. for continuation of my thesis with a new topic has played a very important role in my life. It has been a very long studying experience. I have deepest appreciation and love to the Almighty Lord Jesus Christ for leading me through all the good and bad processes with His grace, teaching and love. He supplies me strength when I am weak, even though sometimes I still feel very feeble and alone. He is the ultimate provider of my inspiration and the greatest comforter when I am hopeless, lonely, and depressed. Countless thanks and love to my dearest and adorable parents, Chuan-Cheng Chiang and Chiu-Chu Chang Chiang for their love, raise, care, teaching, support, and hard to list all. (I also have great love and appreciation to my oldest brother, Ta-Yu Chiang, though it is a big pity that our brother/sisterhood has grown apart recent years.) I have greatest appreciation and love in memorial to my most beloved 2nd older brother, Ta-Wei [David] Chiang, my Angel-S-Bro, who is the super best brother and an extraordinarily vital anchor for me.

I have deepest appreciation to my Chief Thesis Advisor, Professor Stan Rickel. He has been as a superb creative director to me for my thesis design. Without his major and grand guidance, teaching, instruction, advice, encouragement, patience, inspiring, humor, and kindness, I could not have finished and achieved this thesis design. Many thanks to Instructor Roy Cripps’ wonderful Hybrid Sketch teaching to improve my marker skill which is helpful for some brainstorming design process. Special deep appreciation to Senior Lecturer Kim Sherman for his great and kind teaching with SolidWorks 3D computer software that helped improve my skill to build the organic shapes, which once was my obstacle with SolidWorks. I have super deep appreciation to my Munich internship period homestay-mom, belle Ms. Marta Velttri, whose warm and sweet care, kind cheering up and encouragement has made her as a brava 3rd mother to me.

I truly appreciate all the great R.I.T faculty members who have taught and encouraged me, and especially the most to the greatest design mentor to me, Professor and Chair Stan Rickel.
Design one set of healthy tableware that brings users:

one healthy pleasant serene dining;

one happy pleasurable healthy diet.

This MFA thesis design reason was out of my passion for tableware/housewares design and personal experiences of both surfeit and anorexia problems, although balanced healthy diet was also my experience. Moreover, it was also my researches and observations of modern diet problems that happen often. Therefore, my thesis goal was to design one set of tableware which can promote healthy and happy diet, generate peaceful and pleasurable dining atmosphere, and be helpful for users to move from unhealthy dining habits to healthy ones.
“People/Civilians regard food as heavenly sky, of the most importance in their lives.”

- An ancient Chinese idiom from Han dynasty

For living healthily, people need to have good dining habits. There is a saying, “We are what we eat.” Truly, it is important to be cautious of the food that we ingest. The container it arrives in, the tableware is therefore important and even affects how people dine. Contents can dominate the containers, and vice versa. Different cultures with dining habits and contents determine different kinds of tableware. With technology improvement and time, our global village has merged some of the dining habits and contents together, some things we all share in common, while others remain different and exotic. However, most countries both keep their traditional food as well as create new dining cultures by absorbing outside traditions, which may occur to be interesting and tasteful fusion flavor.

My new thesis topic started from tableware design. After doing research, development, and my Chief Advisor’s major guidance, I firmed up my thesis theme to be designing a set of elegant tableware that can encourage people to joyfully pursue health by eating more often at home. Dining at home helps us absorb more nutritious foods as an article from McGill University wrote about “Home is where the healthy meal is” (Home 42). Thus, the most important design goal for this tableware is to present the healthy food beautifully so that users can feel joyful while dining and feel that food is precious.

One healthy meal suggestion of a new mix of Western and Eastern traditions would be proposed as an example. Notwithstanding, users can create their own preferable healthy meals, and serve them freely and pleasurably with this tableware design.
Research on Problems

In the modern time, there are a lot of processed foods and mass-production of artificial food products, which causes many modern people to ingest a lot of unhealthy food unconsciously. Many people often eat too few vegetables and fruits. Some people have too large portion sizes of meals; they ingest too much food and become overweight. Even though chubbiness is cute, obesity could lead to a lot of modern sickness. On the contrary, some people eat too little by unhealthy dieting or are unable to eat because of anorexia. Not enough nutrition may lead them to become too skinny, bony, and ill.

Many people are often busy with work and sometimes eat out too frequently without a good proportion of healthy meals. This also causes a lot of unhealthy problems or chronic diseases. It is better that if they could have easily prepared healthy and tasty meals at home more often on weekday nights and weekends. Dining at home with bowls or plates of adequate size to contain moderate amounts of food is very critical for a healthy diet.

According to the study by Cornell University Food and Brand Lab, smaller plates help control portions (Giblin 42). However, in my opinion, the visual satisfaction of eating enough food is also important so that users do not feel they are starving or eating too little, which might lead them to eat even more unhealthy food or snacks later on. I think an optical illusion could cause people to think that they eat more than they actually have. This assumption is a crucial design hypothesis for my thesis. In addition, helping users slow down eating speed is also an objective of my thesis design because eating slowly helps not only digestion health, but also eventual consumption of less food (Barbour 42; MacDonald 43).

My thesis design has applied a lot of important health research from the professional health experts’ studies and reports; the major applied research from the West is drawn from the USDA (United States Department of Agriculture). The US government’s new recommendation guideline for a healthy diet has changed from the traditional pyramid to simpler food variations and demonstrating portion control through simple plating choices (USDA 43).
Research Find the Crucial Design Concepts

Crucial Concepts & Points for Design

In the beginning of my thesis research and development process, I conducted broad research and study about tableware from ancient to modern times, and the dining problems/needs of modern life. In addition, I also did a lot of experiment design brainstorming during the initial exploratory phase. After working and experimenting with different kinds of design aspects and problem solving, my thesis design direction was finally confirmed to “design tableware that can promote healthy dining and bring users elegant and joyful feeling while using the tableware.”

In order to reinforce the thesis topic, there are three crucial points to address for design concepts. Firstly, I named my thesis topic “‘UN Healthy Tableware” because I found during the brainstorming process that an interesting definition of “‘UN” is “one.” This topic implies that the goal is to design one set of tableware that can help people to move from unhealthy to healthy eating habits. The tableware should contain appropriate proportion of food. However, it is better not to be too dictating to the users; allowing users to have more freedom in placing food will reduce potential feelings of immaturity and childishness. Other than that, the second crucial point to address is that at least one healthy meal example shall be provided as a paragon to the users.

Third, and most important to this entire tableware design theme, which actually covers the 1st and 2nd crucial points, is to pursue elegant tableware design that presents the food beautifully in order to bring joy to people’s dining. Some experts say that using products that please the eyes and mind could help people to have improved mood. As a notable, outstanding academic and professional design critic techno writer, Dr. Donald A. Norman, claims that beauty, fun, pleasure and good emotional design makes people happy (TALKS 43). Therefore, pursuing the design of simple, interesting, elegant tableware that could bring users a pleasant dining experience and mood for health is the vital goal of my thesis.

For achieving that, my thesis design gained inspiration from placid beautiful nature and adorable cheerful animals. My objective for this ‘UN Healthy Tableware is that users can feel that food is precious while using this tableware. Not eating too much at one time not only helps a healthy diet, but also emphasizes food’s preciousness and value. Cherishing the food we eat is one of the essential themes of this thesis.
After researching tableware design from ancient to modern times, I categorized some of the tableware that interested me more into four quadrants: ancient, modern, geometric, and organic. These categorizations help me recognize the developments and trends of tableware design. I decided to design toward modern organic direction because organic forms usually bring people more elegant, friendly and moving feelings.
Research on Interior Design

The research on interior design highlighted Scandinavian as my favorite because the design is very modern, sleek, and sharp, along with friendly, touching, and adorable quality.

Being fascinated by the beauty of simplicity and austerity with adorable or stylish modern decoration interior design, my goal is to design a set of tableware that fits in this kind of pure but also sophisticated, simple but also diverse, cool but also slightly warm, sharp but also mild, user-orientated interior.

“This Scandinavian Long Room has a minimal design, creating a large space. The light and dark colors juxtapose nicely together” (Modern 44).
Brainstorming Mood Boards about Animals

In order to have abstract design inspired by nature and animals, I did a lot of research about those that interested me. These are two examples of the animals that I like and which were selected for my brainstorming mood boards. One is the black hoodie and the other is penguin. These two birds have some features and character in common. For example, they are both black and white with very simple, special, unique features. They are also both kind of chubby which instills a warm and friendly feeling. However, they still have some differences in their characteristics, such as the black hoodie’s cool, smart, and sharp look in comparison to the penguin’s sincere, naïve, and cute personality.
Since tableware is the container for food, research about the food is important as well. I found an interesting vocabulary word, “foodie”, which relates to food. The meaning of “foodie” is close to gourmet (gastronome). Foodies are aficionados for fine food or are experts in tasting foods with delicacy doctrine. There are several vocabularies that have similar or related definitions to foodie, such as epicure, food lover, connoisseur, and bon vivant. Among those synonyms, I feel bon vivant is easier to remember and unique. It means people who are finicky about delicacies and enjoying life. From this brainstorming and research, my point of view is that caviar is the food that best represents this kind of “delicacy.”
Development Brainstorming Experience of Mood

Emotional design has been advocated for years ever since Dr. Donald Norman wrote the book *Emotional Design* and shared this design concept.

Emotional design is a very attractive design direction to me. Therefore, I did some brainstorming for moods and wondered if maybe I should bring mood into my tableware design. Here are the four common kinds of moods that human beings usually experience day-to-day.

<table>
<thead>
<tr>
<th>SAD</th>
<th>JOY</th>
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<table>
<thead>
<tr>
<th>HAPPY</th>
<th>ANGRY</th>
</tr>
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<tbody>
<tr>
<td>cheerful / lighthearted / glad / delighted / hap (chance, luck, once in a while) smile / sweet / celebration / cherish</td>
<td>wrathful / wroth / irate / ireful / furious / violent / volcano / nuclear bomb / tornado / typhoon eye / argue / disagree / fight / jealous / yell</td>
</tr>
</tbody>
</table>

I tried to identify the emotion first, and then come up with form. However, function has been considered consistently during the process as well. In the meanwhile, I had considered negative mood or scary designs to prevent people from eating too much. Though negative moods might stop people from eating, they might also cause people to eat even more. Moreover, a happy mood is important for maintaining long-term health. Therefore, with this tableware design, I chose the direction to bring more positive and peaceful moods for users to have healthy dining atmosphere. Living is better when it is enjoyable and joyful.

“The main issue is that emotions have a crucial role in the human ability to understand the world, and how they learn new things. For example: aesthetically pleasing objects appear to the user to be more effective, by virtue of their sensual appeal. This is due to the affinity the user feels for an object that appeals to him, due to the formation of an emotional connection [with the object]” (Emotional 42).

In sum of my development process, it is better to emphasize moderate happiness and peaceful atmosphere than anger or sadness in dining.
Which direction to go?

With the development process of generating scenarios and users for my tableware design, I considered different genders and various ages of users in diverse kinds of scenarios. Here are two examples of the users and scenarios. I was wondering if I should have different type of design for each gender and age. Being guided to design more neutrally helped me not to make overly girlish forms or be too narrow and restricted in my thinking. In the end, I finally made the decision to pursue a more neutral design, but slightly feminine.
Scenario Storyboard 1

- Eat with a big group of family or friends

From my observation and life experience, I found that people usually have to stand or sit without a table to eat during a party with a big group of family or friends. It is also difficult to carry all the food, utensils, and drink at one time. Sometimes the food mixes together too much in one plate or bowl since there is usually a great diversity of food at this kind of party. When people need to stand and eat, it is also very inconvenient to eat while holding food and drink at the same time. Therefore, I came up with a tableware design that has separations to preserve food diversity individually as well as hold the food, utensils, and drink together in this kind of circumstance. The initial design was in the shape as a snail, which can also remind us that eating slowly is necessary for health.
Scenario Storyboard 2

- Eat alone or with just few of his/her good friends at home

Nowadays, there are more and more single individuals living alone due to later marriages, higher divorce rate, or people who lose their spouses. Single individuals usually eat alone at home or sometimes have just one or two of their good friends visit and enjoy lunch or dinner together on the weekends. After trying both storyboards for experimental design, I decided to select Scenario Storyboard 2 since it occurs more often.

![Storyboard Image](image-url)
Easy Tasty Healthy Meals

Busy working people often forget or are too tired to take care of their own health and eat out often. However, it is much healthier to prepare nutritious meals at home. Nutrition experts declare that eating a rainbow of different kinds of vegetables and fruits can lead to better health (Chiu 42; Garden-Robinson 42; Yale 43). Many people often eat too few vegetables and fruits. When people eat out, usually they have more meat and starch than vegetable and fruit. Eating a large quantity of diverse vegetables and fruit is vital for staying in good health; it can even prevent cancer (Nutrition 43). From my observation and research, some people usually get enough or too much starch and/or meat from their meals and/or snacks while eating out. Hence, less starch and meat would be suggested for users to eat at home, especially at night, as it is better to eat a light dinner (Jacob 42) though even in the day time, eating lightly is better for health as well. Having a balanced meal plan to absorb good nutrition is very important. For health and also a correct diet, people should still absorb adequate starch because it helps to feel full and also burn calories. Otherwise, people might eat more snacks that contain many more calories and fats than more common healthier meal starches (such as rice and noodles), and are usually unhealthy because they often happen to be overly artificially processed. Therefore, my goal for this ‘UN Healthy Tableware Design is to encourage the users, especially those with the aforementioned dining challenges, to dine healthily at home more often. Here is a paragon of easily prepared, still tasty and healthy meals.
Design Process  Initial Design Experiment

Paper Design Study

- Experiment using thin paper to brainstorm initial tableware design

Cardboard Design Study

- Experiment using cardboard to brainstorm developing tableware design

Here are two design concepts for “Storyboard 1: more people eat together”.

<table>
<thead>
<tr>
<th>Design Concept 1</th>
<th>Design Concept 2</th>
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<td>Design a plate that users can hold all in need at one time and still eat conveniently even not sitting at a dining table.</td>
<td>Design a set of rotatable and stackable plates which each can also be used as an individual’s simple portion control dining plate. It may flip over for different dishes serving purpose.</td>
</tr>
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![Fig.17 Paper Study Design](image1)

![Fig.18 Snail Plate](image2)

![Fig.19 Rotatable UFO Plate Set](image3)
Sketch Model Design Inspired by Ancient Tableware

Explore the design of ancient tableware that interests me, and modified/designed them into modern forms.

Gain inspiration from the ancient tableware
Clay Design Study

- Experiment using clay for brainstorming tableware’s initial design

This design concept is based on “Storyboard 2: eat alone or with 1-2 good friends at home”. My design strategy was to have the appearance of more food than actually exists. Thus, it creates visual satisfaction with a smaller amount of food consumed. Part of the design intention was to impede the eating process with a decorative plate obstruction. In this way, users would eat not only smaller amounts of food but also more slowly. The design inspiration came from nature and animals.

Gain inspiration from nature and animals
Brainstorming Sketches in Spring Quarter 2011

In the initial design development process, I tried to sketch different ideas for both Storyboard 1 and 2 to generate diverse ideas and ponder over which scenario’s problem-solving design direction I should move toward.
Initial Design Concept 1

- For Storyboard 1: more people eat together

This design stacks rotatable plates for space saving so that users can have more table space for both serving dishes and dinnerware. The form has a combination of both geometric and organic designs inspired by cute animals. There is also a lit candle in the design to add a more relaxing and warming atmosphere.

Fig.24 Initial Design Concept 1
Initial Design Concept 2

- For Storyboard 1: more people eat together

Design concept 2 also has the same design concept for saving space and utilizing relaxing candlelight. However, the space-saving concept is different. This design recalls petals set together in a round shape on a round table. Grass-like spice containers were designed to add interesting functional ornaments to the tableware set. Though this design idea is interesting, it is more compatible for a round table. My inspiration for this design came from beautiful nature. This design creates an interesting mix of bulky and dainty elements.
Design Process  Initial Design Concepts

Initial Design Concept 3

This design is simply about exploring shapes for some fun spice containers to add joy and fun to dining. The design tries to express the tail movements of a cute and naughty cat or monkey.

Fig.26 Initial Design Concept 3-1

Fig.27 Initial Design Concept 3-2
Initial Design Concept 4

- For Storyboard 1: more people eat together

This design concept is similar to Concept 1, but without the animal forms. I reduced the number of serving plates since that people would rarely utilize so many dishes at one time in general. During this design process, I came up with the individual’s bowl-plate design that is similar in form to the serving dish plates. The inner smaller round-shape space, like a small bowl, can be used as portion control for starch; the outer divided space then can be used for plating many different kinds of dishes.

Fig.28 Initial Design Concept 4
Initial Design Concept 5

- For the 2nd Storyboard: eat alone or with 1-2 good friends a home

At the end of spring quarter in 2011, the decision was made to go with Design Concept 5 and develop from this with the guidance of my Chief Advisor. The reason for the choice was that this design corresponds better with the daily life and requirements of many people.

This design concept evolved from the design of the individual’s own bowl-plate while eating with more friends. However, the design has too many divisions for different kinds of dishes in a meal for a single individual or just few friends together. Therefore, I tried fewer but more diverse dividing designs for this simple one bowl-plate portion control food dish.
Finding Final Design  Re-Brainstorming 3D Sketch

It was an extremely frustrating pain that I had an incredibly hard time developing design ideas from Design Concept 5. Therefore, in the beginning of fall quarter, I decided to re-brainstorm in order to gain more and better inspirations for the design.

The re-brainstorming was about forms, emotions, nature, objects.

Fig.30 Re-Brainstorming 3D Sketch
Finding Final Design  Re-Brainstorming Initial Design

Re-Brainstorming Initial Design

This process was to refine the tableware design ideas from the re-brainstorming inspirations. I tried a few directions, which more obviously indicated to users which space should be used for which different kind of food. Nevertheless, this tableware was designed for adults, so it is better not to dictate the food serving space in a too rigid and obvious way, but allow users to have more freedom to place their food in line with subtler indications.

Fig.31 Re-Brainstorming Initial Design
Finding Final Design  Re-Design Concepts

Four Design Concepts for Selection

After the re-brainstorming design process, I proposed four design concepts to be the options of the main plate for an individual’s meal. These design concepts are abstract designs inspired by nature and animals. The function of designing one smaller space and the other larger space is for portion control which suggests to users a smaller starch portion and larger vegetable portion.

Concept 2 was selected because it has simple portion control spaces that are practical to use and easy to clean. Furthermore, it is a more abstract and elegant design that meets the important theme of my thesis: to design elegant tableware that allows users to place the food beautifully and freely for a healthy diet and mood.

Fig. 32 Re-Design Concepts 3D Clay Mockup; ½ Scale
Finding Final Design  Main Plate Mockup

Make 1:1 Clay for Mockup Process

Finally I moved on to the process of making a full size clean clay mockup for creating a plaster mold. When comparing the new full-sized plate mockup to the original ½ scale plate mockup, it occurred to me to add it to the tableware set as a healthy sweet plate. The reason is because eating an adequate amount of smart snacks is both enjoyable and healthy for both body (Smart 43) and soul. In addition, the smaller healthy sweet plate enriches this tableware set design.

Fig.33 Main Plate Clay Mockup
Finding Final Design  Bowl Design

Design a Small Bowl to Go with the Main Plate

It was suggested that I design a bowl to go with the main plate. The advice that it be smaller with simpler similar design elements to act as a foil to the main plate is excellent. (Later on, it occurred to me that making the bowl as a protein food suggestion space would correspond with my studying about healthy diet as well as my solution for the needs of my target users, according to their usual dining habits.) During the design process, two designs below were better to match the main plate, but they are both too big to be the foils. Though these two bigger bowls could not go with the main plate, I like the forms and consider them to have potential as a fruit bowl and a soup bowl for this tableware set.

Fig.34 Bowl Design Idea Mockup Type 1

Fig.35 Bowl Design Idea Mockup Type 2
Use Plaster for Making Mockups

After many attempts, I finally reached a simpler, appropriate smaller bowl design to match the main plate and began the plaster mockup making process.
Refine & Refine & Refine, etc. during the Mockup Making Process

With the final plaster mockup making process, the forms were elaborately refined and refined many times and examined to pursue more sensual curves and forms.
Design Silverwares to Match with the Tableware

The silverware design also needed to have the amount-control design concept so that it helps users eat sensible amounts of food. It looks like standard scale silverware, but users cannot get too much food at one time while dining. In this way, it will also aid users to slow down the eating speed, which is so important for health. The design also achieves elegant shapes that go well with the main plate.
Final Design  Spoon Design 3D Modeling

SolidWorks Computer 3D Modeling for Making 3D Printing Mockups

The form of the spoon was also refined laboriously during the SolidWorks 3D computer modeling. Among the spoon designs, this one matches the overall design concept best for its function and appearance design both satisfy the crucial design theme. This process is also for creating the SolidWorks 3D file for 3D printing and making mockups.

Fig.39 Spoon Design 3D Modeling
Final Design  Fork Design 3D Modeling

SolidWorks Computer 3D Modeling for Making 3D Printing Mockups

The design of the fork has similar form elements as the spoon, but slightly different in the back because its form needs to follow function.

Fig.40 Fork Design 3D Modeling
SolidWorks Modeling

After making the spoon and fork, I tried the experimental design chopsticks with the same design language and concept. Then I came up with adding a stand design for the silverware, which recalls Asian culture. Having a stand for the fork and spoon to rest during dining creates more continuity for the design and neatness on the dining table. This tableware is for mixed culture meals and a fork is convenient to use even with Asian foods as well. Therefore, a spoon, a fork, and a stand comprise the complete silverware set for this tableware design. (The other kind of complete silverware set which includes one pair of chopsticks would be for users who prefer to dine regularly or once in a while with chopsticks.)
**Matte Finish**

1:1 models; main plate and spoon

Material: Porcelain

The final finishing for this product can have either matte or glossy for users to select. However, if the production plan is limited to only one, light glossy finish will be the choice.

![Matte Finish Final Model](image)

*Fig.42 Matte Finish Final Model*
Final Design Final Models

With the glossy finish, I decided to have lightly glossy finish because it suggests more subtle, elegant, and classic design characteristics.

High Glossy Finish

1:1 models; main plate, spoon, and fork

Fig. 43 High Glossy Finish Final Model

Light Glossy Finish

1:1 models; main plate, small bowl, dessert plate, spoon, and fork

Fig. 44 Light Glossy Finish Final Model
Conclusion

‘UN Healthy Tableware: A Set of Healthy Tableware

Designing a set of abstract and elegant tableware that creates a pleasant peaceful atmosphere for dining and promotes a healthy diet for the users is my thesis goal.

My thesis promotes users to eat at home more often with my healthy tableware which, through portion control, helps users consume less at one time as well as delight in their dining by presenting food beautifully and freely. My design theories of healthy dining are based on the study of MyPlate health promotion from USDA and many professional health studies from notable and convincible universities in the world, such as Harvard University, McGill University, Stanford University, Yale University, etc. (Barbour 42; Blanchard 42; choose 42; Getting 42; Gibline 42; Home 42; Ji 43; MacDonald 43; News 43; Nutrition 43; Smart 43; The 43; USDA P43; Well-Being 43; Willet 43). USDA’s MyPlate campaign heightens public awareness of having a balanced healthy meal with a quarterly message: “Enjoy your food, but eat less” (News 43). My tableware design applies mostly the same theories, though is somewhat different in order to achieve this thesis design goal: encourage users to adopt a healthier diet without the unsatisfied feeling of eating too less. The tableware appears to have more food than it actually contains. Users could still have second helpings of food, but the amount is still controlled. It is also helpful for slowing down eating speed so that the users’ brains are aware of fullness. Thus, it prevents overeating. Also, my tableware design suggests food display space, portion sizes, and dining behavior for the users in a more sophisticated way.

Fig. 45 is an example of healthy meal paragons: the main meal includes fewer grains, more vegetables, and an adequate amount of protein which can be occasionally omitted at home since users usually have enough meat in their everyday diet, or can gain protein from other foods or drinks. The small dessert on the right side is made with yogurt, honey, and fresh frozen fruit; a smart, not too sweet “sweet” after a main meal is healthy for the body and the soul.

In conclusion, ‘UN Healthy Tableware hopes to create a healthy, joyful, and elegant dining experience for users that encourages them to cherish food.
Acknowledgements & Special Thanks

With my thesis design, I must give deepest appreciation to my Chief Advisor again for his superb and major guiding me into the right design direction, vital teaching from broad views to detail work, humorous and warm encouraging when I was timid or hesitating, and instructing me dynamically inspiring.

He has helped me jump out of my design box. From all his teaching during the process, I remember especially his teaching about how to have abstract design. It is better to try to express part of the beauty of a flower with more abstract design. The reason is that no matter how hard I try to draw or express the beauty of the whole flower, I could never draw or make a flower more beautiful than a real one. Abstract design of showing the important part of the beauty of a flower that one wants to express is better than just trying to mimic the entire flower.

Moreover, I was so moved and appreciated deeply for his laboriously demonstrating the procedure of making plaster mockups and helping/teaching me kindly when I made trouble. He patiently reviewed my thesis design from time to time through the entire process and helped me improve the design, form, and curves by following his marvelous advice and amazing aesthetic to revise and refine.

I also thank Instructor Roy Cripps and Professor Michelle Harris very much for their kind encouragement and advice, and great teaching from different kinds of aspects. Special many thanks to Roy and his lovely wife, Win’s warm care, kind and great help with checking and revising part of my thesis paper. Thank a lot to the Writing Consultants from Writing Center who have given me great advice and guidance to improve my writing skill. Many thanks to my editor, Phil Shaw, his editing helped my paper to be sharper. Though after all of their help, there were a lot of time and efforts from me again and again and again to read/check over and over again and revise the writing to what I wanted to express or describe for my thesis design.

Also thanks me, who have been a workaholic weirdo for my third study chance at R.I.T. for completing my thesis and improve my design skills, ability. No matter with the design or paper, I have been working super hard though they look so simple. Writing this is just that I do not want people to misread as if I had been sitting there doing nothing and just relying on others’ working for me, which was definitely not. Sincerely many thanks to all those who have helped/taught me during my study time at R.I.T. though they are not listed here because it is really hard to list all.

I am really glad that I overcame the obstacles to return and finish my thesis and hanged on here, lived a life that I could not stand before, for so long. Special thanks to an incredibly cute and cool cat, Sam McBe who is as an unique younger brother to me and cheered me up, being so specially sweetest (=^_^=) to me when I was extremely deeply depressed. Deepest appreciation to my dearest parents again. I gave the most and deepest appreciation to the perfect Almighty Lord Jesus Christ, God of light, love, holiness, righteousness, etc., and my best Angel-S-Bro, Ta-Wei [David] again/all the time for everything and my thesis.
## List of Illustrations

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To the ones loved & cared by me the deepest or deeply --- Wei-Mei Chiang
Deepest deepest deepest appreciation to the Lord Jesus Christ

Deepest deepest appreciation to my Angel-S-Bro Ta-Wei [David] Chiang

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Creative Director Professor & Chair Stan Rickel
Designer Wei-Mei [Mia Meilive Chia-Ching] Chiang