12-6-2016

Design for working day’s lunchtime: Lunch with me

Han Zhang
hz7181@rit.edu

Follow this and additional works at: http://scholarworks.rit.edu/theses

Recommended Citation
Zhang, Han, "Design for working day’s lunchtime: Lunch with me" (2016). Thesis. Rochester Institute of Technology. Accessed from

This Thesis is brought to you for free and open access by the Thesis/Dissertation Collections at RIT Scholar Works. It has been accepted for inclusion in Theses by an authorized administrator of RIT Scholar Works. For more information, please contact ritscholarworks@rit.edu.
Design for working day’s lunchtime: Lunch with me

by

Han Zhang

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of MFA Industrial Design

School of Design
College of Imaging Arts and Sciences

Rochester Institute of Technology
Rochester, NY
December 06, 2016
Lunch with me
Design for working day’s lunchtime
Committee approval

Alex Lobos
Associate Professor, Graduate Director, Industrial Design, School of Design, CIAS, Rochester Institute of Technology
Email: Alex.lobos@rit.edu

Signature: ________________________________
Date: __________________________

Stan Rickel
Associate Professor, Industrial Design, School of Design, CIAS, Rochester Institute of Technology
Email: srrfaa@rit.edu

Signature: ________________________________
Date: __________________________

Dan Harel
Adjunct Professor, Industrial Design, School of Design, CIAS, Rochester Institute of Technology
Email: dxhfaa@rit.edu

Signature: ________________________________
Date: __________________________
# Table of Contents

## Abstract

## Design statement

1. Background
   1-1. Health & food
   1-2. History of lunch
   1-3. The benefits of lunch
   1-4. What’s in the lunch box

## Problem statement

1. Time
2. Location
3. Activity

## Design research

1. User examples and environment profile
2. Design definition

## Product development

1. Product concept ideation
2. Mind mapping
3. Initial design
4. Concept development

## Final design – lunch with me
1. 2D view
2. 3D rendering
3. How to use is
4. Features and detail
5. Model making process
6. Thesis show

**Material selection**

1. Material of the traditional lunchbox
2. Material selection

**Business development**

1. Packaging Design
   1-1. Logo design
   2-2. Packaging Design
2. Business promotion
   2-1. Business strategy of “Lunch with me”
   2-2. Examples of business working

**Conclusion**

1. Conclusion
2. Further Study

**Bibliography**

**Image Citation**
Abstract

Lunch is one of the indispensable meals to take in a day. Eating lunch energizes our bodies and makes us concentrate more on our work. Nowadays, people always have a hard time enjoying their lunch during weekdays most especially college students and office workers because of their fast working mode. These people have limited time during lunch break or working in not so ideal place to eat such as their office. Unlike having meals with families, eating lunch with colleagues can be a huge opportunity of socializing with each other. Fresh new connections can be made in these occasions.

“Lunch with me” is trying to help people prepare healthy lunch at home and create a flexible tiny eating area in the limited office space to encouraging people walking away from working desks and have lunch together. Face to face conversation will enable people feel fully relaxed when having their lunch, also eating the appropriate food at lunchtime will provide enough energy and nutrition which would encourage people to perform better at work.
Design statement

1. Background

1-1. Health & food

In its 1948 Constitution, the World Health Organization (WHO) stated the broad definition of health as "a comprehensive state of physical, mental and social well-being, not just the absence of disease or weakness." (World Health Organization 2006) For humans, health is the ability of individuals or communities to adapt in any given condition. (Georgia State University 1998) Health has an extensive range that is influenced by lifestyle, economic, social conditions, and lots of other elements. Among these factors, eating is one of the most important elements that directly affect our physical condition, as we know humans cannot skip eating. The food we eat every day can provide us the energy to support ourselves, and we can also acquire necessary nutrients from food. In the other words, the food we choose to eat directly affects our life and health. As for the lunch, it is an indispensible meal for everyone especially the working people. Lunch does not only provide energy to support the working people individuals throughout the day's work but also provides them a really good chance to relax and connect with their colleagues.
1-2. History of lunch

The concept of lunch as a meal between meals is a characteristic of modern Western culture. (Megan 2014) Because of the Industrial Revolution and the rise of factory system's needs, the number of workers has increased. Huge numbers of people have changed their work place from homes and farms to factories in the Middle of the 19th century when workers didn't have enough time to eat lunch at home. (Megan 2014) The workers had to prepare simple food from home, such as eggs, vegetable, meat, coffee and used the cleaning tobacco cans to take these foods to work. These tobacco cans were used to store food as it is the earliest lunch box. (Bramen 2012) Today, lunch boxes are usually

Figure 1- Lunch Atop a Skyscraper, 1932
made of plastic, with foam insulation and aluminum / vinyl internals. Some of the lunch boxes we have today are better for keeping food warm. (Hartman, The American Lunchbox 2012)

1-3. The benefits of lunch

Eating in the middle of the day, several hours after breakfast, re-energizes the body and can raise blood sugar levels which help to enhance focus and concentration at work. (Schuna 2015) Unlike having meals with families, eating lunch with colleagues can be a huge opportunity to socialize. Fresh new connections can be made in these occasions.

As we know, in present times, people often eat three meals a day. Each meal provides energy for life support and activity for a period of time. In a study published in the January 2005 issue of "The American Journal of Clinical Nutrition", when people eat sporadically, they will consume more calories than needed, which would result in higher cholesterol levels, and have lower insulin sensitivity. Eating three meals a day can bring about satisfaction and one might not need to eat too much food after a long while. It will also help to maintain a healthy blood sugar level. (Melodie 2014)
Out of breakfast, lunch, dinner, people believe that dinner is the most important. At dinner, there is always enough time to prepare good meals and our family members are always around to dine with us but during lunchtime we often grab fast food, and for someone who has a really tight schedule, he may choose to eat lunch as quickly as possible in front of his working desk. Because of the limited time and environment, people don't pay attention to lunch as needed. In fact, in some aspect, lunch is the most important meal out of the three meals we eat every day. Some study shows that lunch provides 40% energy and nutrients of all energy and nutrients we need in one day, and breakfast provides energy which accounts for 25% to 30% of the total energy we need per day, as for dinner, it provides 30% of the energy we need in a day. Lunch plays an important role in supporting people's physical and mental state in one day. (中国酒店猎 聘 2015)

However, lunch is an indispensable meal for us, as we all know, it provides energy to our body to support our remaining half a day's activity and work. If you are feeling low, eating a small lunch can refresh your body and helps you get ready for the rest of day’s work. It's common to want to skip lunch if you're trying to lose weight or cut calories, but that strategy rarely works. According to the Weight Control Information Network, people who regularly skip meals tend to weigh more than people who eat often throughout the day. Eating too much at lunchtime can also have a negative effect. Taking more than 800 calories at lunch can lead to slowness and even fall asleep. This is because high carbohydrate intake causes the body to produce serotonin, a chemical that causes drowsiness. (Schuna 2015)
1-4. What’s in the lunch box

The lunch boxes were changed in order to improve people's convenience but the food inside the lunch box didn’t change. In the western countries, traditionally packed lunch include a sandwich (turkey, ham, tuna, peanut butter & jam, etc.), some fresh fruit, a beverage (usually milk for kids), and something extra (potato chips, a cookie, etc.). (Snortum 2014) Of course, physical laborers may require a lot more energy but their lunch boxes may contain the same food items. In other side of the world, people in the Eastern part of the world may choose different type of food for lunch. In the East, lunch is often served with rice or noodles as a staple food and one to two courses (including meats and vegetable), and soup is also indispensable in many cultures.
Problem statement

1. Time

The quality of food and the eating area we choose for lunch is directly influenced by the length of the lunch break. Did you remember to take your lunch yesterday? Or did you eat lunch yesterday? Chances are that the answer is no. Due to the pace with which people work today, especially those with tight schedules, they always have limited time for lunch.

![Chart 1 - What is the average length of your typical lunch break?](image)

In 2014, the survey of office workers was developed by Office Team which conducted an independent research through telephone interviews with more than 400 U.S. workers; 18 years of age or older and employed in office environments.
This survey shows that nearly half of the workers interviewed stated that their typical lunch break lasts 30 minutes or less, and some workers didn’t have lunch break at all.

2. Location

A survey from Right Management and LinkedIn about “where are you eating your lunch?”

It is shown in this survey that 35 percent of working class people eat lunch at their desk and only 40 percent of them eat away from their desk and 15 percent of them seldom or skip lunch during work days. The survey shows that about half of the workers today eat lunch alone at their desk or skip lunch.

Not eating lunch or staying at the desk during lunchtime may lead to bad working
conditions "in the same position, internally, and detrimental to creative thinking," says management professor Kimberly Elsbach. (http://www.npr.org 2015)

On the other hand, spending lunchtime at the desk may make one miss a good chance to socialize with their colleagues. “Lunch breaks aren’t just for eating—they provide you enough time to clear your head and recharge,” Robert Hosking, executive director of Office Team, said in his statement. “Workers can also use their lunch breaks to get to know their colleagues better and build their professional networks.” (Park 2014)

3. Activity

[Bar chart image]

Chart 3-"Aside from eating, which of the following activities do you usually engage in during your lunch break?"

OfficeTeam survey from January, 2015.
More than 42 percent reported that, besides eating, they spend this time socializing with colleagues, while 29 percent admitted that they work during lunch breaks. "Lunch breaks aren't just for eating -- they provide enough time to clear your head and recharge. Workers can also use their lunch breaks to get to know their colleagues better and build professional networks." said Robert Hosking, executive director of OfficeTeam. (Park 2014)

What we eat at lunch is important but for working people, lunchtime is not only meant for eating, it is also an important time to relax and release the stress from work. One has to take some time to rest the body and exhausted brain in order to concentrate on the rest of day's work. On one hand, changing environment during lunch by simply stretching or engaging in a short walk can help relax the body. Most workers simply love eating at their desks. But studies have also found out that the longer you stay at work, the more important it is to get outside the office, even if it's just for a few minutes because creativity can take a hit when you don't change environments. Stand up and walk around a little bit; these simple movements can expedite your blood circulation and help you clear your thoughts. The ideal environment to relax is that of nature and green environment, but because there are limited working spaces, taking a look at some green plants around your working area is also a good way to relax.

On the other hand, for working class people, lunchtime is not only meant for eating, but it is also an important time to communicate with others. In survey from Office Team, 33 percent interviewer reported that, aside from eating, they spend this time socializing with colleagues. Aside from eating breakfast alone or have dinner with family, as for the working people or students, they always eat lunch with their colleagues or classmate. It makes lunch period have more social meaning to them. It is really different from talking
and eating with people you don't have deep emotional connections with. Apart from family members or friends that these people are familiar with, one would have the chance to communicate with the colleague or classmate who we are not really familiar with but work with, and hence, lunch time becomes a good chance to speak and get familiar with them. As we know, talking is a really good way of relieving stress and networking are much more than practicing fawning. Lunchtime provides an appropriate chance and time to make people get to know each other in the office and in the class, getting to know others on a one-to-one basis is essential to building relationships.
Design research

1. User examples and environment profile

User1:

Name: May
Age: 24
Job: Designer
Location: Ohio US
Lunch time: 12:00-13:00

May usually brings her lunch from home but sometimes she goes to the restaurant nearby the office with colleagues and only chooses to eat fast food because of the limited time. The recipes of her homemade lunch are from the leftovers of the last dinner. In her office, there is no extra room or extra table for eating so she has to eat in her own desk next her sketch.

Figure 3- User research1

In this design office, the decks are full of hand sketch and other paperwork.
Everyone has their own work area and the whole office is divided into many small compartments, between each compartment, there is some space not being utilized.
User2:

Name: Xiaohua
Age: 42
Job: Financial analyst
Location: Beijing China
Lunch time: 12:00-13:30

Xiaohua’s lunchtime is one and half hour long but she can only take break at most half an hour. She always has meeting every morning starting at 9 am twice a week. The meeting always last till 1 pm. The restaurant nearby her office is always filled at lunchtime and hence, she doesn’t have enough time to prepare her lunch in the morning, so she decided to skip her lunch and use this time to exercise by walking around the office. She is always starved and distracted in the afternoon.

Figure 5- User research3

In this office, there is only one small rest area. Everyone get their own semi-enclosed work area.
User3:

Name: Joey
Age: 29
Job: Material science PHD student
Location: Hong Kong
Lunch time: 11:45-13:30

Joey usually eats lunch with two or three colleagues in the cafeteria at the University because there are too many people waiting to be served in the small restaurant outside the campus. But the price of the foods in the cafeteria is higher than outside the campus. If he needs a nap during lunchtime, he often skips the lunch to eat some snack afterwards.

Figure 6- User research4

This space is for seven people to do research and data collation. They use the center area as a meeting space by grab chair and gathered together.
2. Design definition

From my survey data, lunch on working day for working professionals is subjected to certain restrictions. The quality of lunch is influenced by different types of work and the working environments. Different living habits also affect people's attitude towards lunch or lunch break. According to the survey object, more people sacrifice their lunch break and plunge into work. This changing attitude towards lunch is also due to the need to work faster. But as I mentioned earlier, from health perspective, the habit of not eating lunch or working after having breakfast without proper rest time will reduce people’s efficiency at work.

By talking to people in different working environment, I found out the reason why people pay less attention to taking lunch while working, as it is related to the working hours and environments. The people who choose not to eat lunch because of the fast pace and the long working period often have no time or energy to prepare and make reasonable diet, therefore, they settle for snacks or fruits when hungry. Most of people who eat lunch choose snack because it is convenient and swift, but they ignore the nutritional and food safety issues. At the same time, in some big cities, companies are involved in intensive distribution, most workers that work there couldn’t get a restaurant which is closer to the company at lunchtime, and the simple types of lunch they take is also a problem; and the other category of people who choose to bring their lunch to work are likely to face the problem of limited dining environment, like an office without a special dining area and dining table. In this situation, most people choose to eat lunch at their desk, and this behavior will affect the clean and tidy office environment. Also, in this kind of lonely dining environment, people unable to get relaxed effectively as it also impedes the communication and exchange among people during lunch break. This will subsequently
influence the social significance brought about by eating lunch.

I hope to help people design a healthy and efficient working lunch routine in a quick and easy manner. At the same time, I am also concerned about people’s experience during lunch; provide healthy dietary recommendations to ensure that people get enough energy and nutrients to work in the afternoon. I will also redesign lunch time experience, and create opportunities and better environments to bring people together, promote communication and exchange of ideas among people. This design will utilize the existing space to create a face-to-face social environment without the limitation of the environment. I hope that my design can encourage people to get out of their little cubicle to feel more relaxed and expend the pressure towards the social time provided during lunch break. What’s more, this design will help people realize the importance of lunch, change people's attitude toward lunch, so they can pay more attention to it. Through this process, a healthier lifestyle and work efficiency will be guaranteed.
Product development

1. Product concept ideation

In order to provide the new healthier lunch experience to working people, I narrowed down the problem they are. The two main problems include limited time and environmental limitations. Since the duration for lunch varies from one company to another and I cannot change it, therefore, I focused on designing a product that will help people make more efficient use of their lunch break.

On this note, I thought kinds of activities in which people engage in and the types of activities in which people can do to energize themselves, and get in a good mood before resuming their work. In general, most people act serious in the work environment than in other environment, and this serious state often makes people nervous and stressful. As for stress relief and relaxation, I discovered new ways that could be helpful.

![Figure 7- How to relax](image-url)
Stress relief activities include eating light healthy food, listening to music, viewing nature, spending time talking to people, doing yoga or stretching and so on. But the question I found answer to is the environmental limitation. I tried to include these activities in people’s lunch break and in such a way that it fits perfectly in the limited time schedule without burdening the user. Hence, I chose to use users’ behaviors to guide my design for lunchtime and the lunch area in a limited environment. I began to rethink the relationship between the working individuals and the environment in which they are working at. According to Chart 3 which indicates what people during their lunch break, I discovered that people would like to chat with their colleagues during lunch breaks and walking away from the desk is an opportunity to rest the ever working brain.

I kept thinking about what kind of place can bring people comfort and what circumstances can help people relax and communicate. Because I didn’t want to create an environment in which people would eat alone but an environment where people can naturally communicate with each other. First, I was inspired by the way people like to seat outside to have picnic together on a nice sunny day. Picnics are often family-oriented or consist of the gathering of just few friends. Irrespective of the serene and quiet atmosphere, people often chat and also create a good avenue for snacking. Closeness to nature brings people peace of mind and it also enhance conversation which improves the relationship between different people. This natural environment will allow people relieve the stresses way better than when they are in a closed office. People will feel relaxed at mind and in their body because the elements within the outside environment such as the sunlight, air and even the green color of the plants can help people relieve the fatigue in their eyes.
Which indoor environment can create an avenue in which people can relax and interact with each other? At this junction, I thought about the Café. In the coffee shop, time often slows down and makes you forget the hustle-bustle of life. In general, it usually comes along with very gentle background music in this environment. While seating comfortably inside the café, the warm lightning makes the whole atmosphere become very peaceful and calm and the smell of coffee can give people a sense of relaxation. This special environment can make people feel relaxed while away from home and the office to enjoy the coffee and to relax with friends.
Furthermore, the size of the table in the café is usually very small. On one hand, this is because the café doesn’t need big table space to place the meals. On the other hand, in this environment, people enjoy the relatively close distance in order to casually interact with their friends rather than a big dining table which requires formal etiquette. Most of the café shop chose the round table or table with fillet corner in place of the tables with sharp corners to create a soft feeling. Normally, the arrangement of the Cafe tables and chairs inside the café shop created a semi-independent face-to-face communicative environment.

Figure 10- Table arrangement in Café environment
The natural picnic and the indoor café environment gave me a good reference for designing a relaxing area for working individuals. The elements from these areas such as the sounds, the sits, the light, the smell and temperature do not only influence people’s feelings but also bring about a relaxed mood and friendly conversation.

Although the condition of the lunch environment is a necessity but the most important thing is what you eat for lunch as the food we eat directly affects our health. Nowadays, "health" has become a very popular topic in our daily lives because it is a really big issue we have to deal with. Many people choose fast food as their everyday lunch; however, fast food is not healthy at all because it often contains high levels of sugar and fat that causes or increases the risk of obesity. It is evident that people living near fast-food restaurants tend to be obese. The cooking oils and preservatives used in making snacks makes it difficult for the body to distribute fat, and even when you try to raise your activity levels, it becomes difficult really difficult to distribute extra calories. (http://www.md-health.com 2014) However, most people hardly get enough healthy meals to eat at work. In order to eat a healthy lunch during working hours, preparing a lunchbox from home is a good choice.

A perfect and healthy lunch must be a combination of vitamins, minerals, fat, carbohydrates and protein. Carbohydrates and fats provide energy and protein needed for the proper functioning of the body. (Coleman 2015) Different kinds of food can supply us different nutrients. Although we need to supplement the body with the required energy needed to perform better at work, we must not resort to eating high calorific foods because it will make us drowsy and sleepy. Then, I began to think of different food choices for lunch. How can working people manage the calories in the food they eat? How can they choose from different type of food for lunch and make sure it is good for
their health? How can they make sure the lunch they prepared will supply them enough energy? Then, I discovered a method which involves using portion control to manage the lunch people take.

![Figure 11- Portion control](image)

A research from The University of Texas at Austin shows that portion controls you from overeating and it will help you optimize your energy level throughout the day. (The University of Texas at Austin 2014) Portion control can help people manage their food while making sure their meals consists of the needed varieties of food types and nutrients; for instance, low carbohydrates for people trying to lose weight and high protein for those that need more brain capacity.

2. Mind mapping

I started thinking about the relationship between food, health, eating period and area with
my target, the working individuals. The food they eat for lunch doesn’t have to be fancy but it has to provide enough energy and nutrition to help focus and perform better at work. The purpose of eating lunch while working does not only involve eating a meal at a particular time of the day, it also involves taking a break from work to socialize with other colleagues for networking purpose. The atmosphere of the area they choose to eat in has to be good enough for communication to make sure that they are relieved from pressure before finally getting back to work with a good mood.

Figure 12- Mind map1
In order to organize my thoughts, I started thinking about the most important questions for the design which include where, when, who, what, and why.

Figure 13- Mind map2
Looking at specific aspects of lunchtime, I become more certain of my design direction. I need to solve many problems, not simply to help people design a lunch environment but to also consider the relationship between the environment and the entire office, and the relationship between the environment and the people. Of course, there are lots of detailed problem, such as how to prepare food, how to store food, how to heat the food and so on. More importantly is how well these activities are connected in series.

3. **Initial design**

After putting all the thoughts in to sketch, I came up with an idea about a lunch system for the lunchtime experience at the office which includes a nutritional guide for lunch, the lunchbox, the storage area and eating area in the office. In this system, people can easily prepare their lunch at home according to the nutritional analysis and guidance then store in their lunch boxes during work hours and it can be warmed afterwards. Of course they will have a special eating area which would help them get a chance to chat with others. Leaving the office area to chat with colleagues will help to relieve the pressure from work and bring about a better mood for working.

I thought of including some fun parts which would still be functional in the eating area like adding some casual activities which would enable people stretch and exercise while using this system. I chose a tree image to represent the natural element, and used the branch of the tree to include some interesting to the design.
lunchbox storage shelf “lunch tree”. It’s including a branch for hanging the lunchbox and a refrigerator to storage lunchbox.

When lunch time arrives you need to walk away your desk and do some simple stretching exercises to get your lunch box. Then you can walk to the eating area which has microwave in the center of the round table.
I tried to came up the different ways of the detail to hang on the lunch box, and also thought about the size of the holding part of the lunch tree to place the lunchbox and make sure it can not fail down.
Figure 18- Initial design model

The model of the lunch system including the nature color the feel of the nature, and the flexible site in this area.

For purpose of involving portion control to prepare customized healthy lunch box, the lunch box in my initial design will be used to separate different kind of foods in different containers. This way, people can easily see can reasonable plan their meals reasonably every day.
The idea of use different containers to separate food also give me an idea that share meals with colleagues. In this way, the people might start interacting and discussing while taking their lunch and this will create an avenue for fun during lunch hours. Sharing a part of your lunch with others may increase interaction among different people. In some way, it will make it easier to control lunch portions, for example you didn’t prepare fruits for today you may have some colleagues can share with you.
4. Concept development

Combined with my previous survey of user data, I found out that there are some problems that has to be solved in my initial design; for instance; is the size of the whole system appropriate for most office spaces? My initial design involves creating enough space to set the lunch tree and eating area. If this space is used only for lunch purposes office, will that lead to waste of space in a limited working environment? The answer to this is likely to be yes. Especially for small office space, if this lunch system cannot be used for other purposes, this may burden the entire work environment. From the flexibility point of view, this lunch system cannot provide convenience or practicality for people.
So I changed my concept to focusing on designs for the existing office environment. Now, to analyze the two main problems; are limited time and limited environment. As for the limited time, I thought about designing a lunchbox with portion control to help people prepare lunch at home and to create an eating area which is easy to set up and to clean up. As for the limited environment, a flexible lunch area doesn’t need the extra lunch table and easy storage facilities could be helpful.

Then I came up a new idea about “bring your lunch table with you”, which including a lunchbox and a lunch post. The surface of the lunch table will have created by lunchbox itself. Therefore, there will be no need to set up a special lunch table and no specific eating area for lunch either.

Figure 21- Portion control lunch box and the lunch post - bring the lunch table with you
Figure 22- Concept development sketch1

Different ways to open the lunch box to a surface to place the food.
Figure 23 - Concept development sketch 1

The thoughts of connection part
Final design – lunch with me

“Lunch with me” is a type of design that will help people prepare healthy lunch at home and to also create a flexible tiny space around the limited office area to encourage people to walk away from their working desks and have a face to face lunch together at lunchtime. Face to face interaction will help people feel fully relaxed while having their lunch. Also, eating the appropriate food at lunch provide enough energy and nutrients that would make people work efficiently.

Figure 24- Final design concept

Bring your lunch table with you in the lunchtime
Eat health nutrition food
Walk away from your desk
Create a face to face social area
1. 2D view

Figure 25- Product dimensions
2. 3D rendering

The portion control lunchbox

Opening the lunch box will create a surface for eating lunch. The different size of the cups inside the design will create space for different kinds of food; and using portion control to create your own work lunch.
Using the flexible lunch post is a good way to replace the lunch table in the office. It can easily storage in some corner or under the desk when you don’t need it. When the lunch time come you can set up a lunch area easily.
On the design of the lunch box, I use the open surface of the lunch box to replace the lunch table in office. Meanwhile, this design can solve the problem of cleaning after meal by simply closing the lunch box. This simple procedure can on the one hand finish the cleaning work, and on the other hand promote the efficiency of lunch.

The lunch post is designed to controls the user number under four to ensure every user can have a sufficient eating area and to create a small group communication space, providing a chance for communication in a relax mood.

Figure 28- 3D rendering- Lunch with me
3. How to use is?

Prepare your health lunch box in 4 steps

1. Start with Main course
   - turkey sandwich
   - tuna salad
   - hard boiled egg
   - bagel sandwich
   - chicken wrap
   - pasta
   - grilled chicken
   - pizza

2. Add some Veggies
   - lettuce
   - broccoli
   - tomatoes
   - snap peas
   - celery sticks
   - cucumber
   - carrot sticks
   - peppers

3. Don't forget the Fruit
   - grapes
   - orange
   - blueberry
   - cherry
   - pineapple
   - kiwi
   - peach
   - watermelon
   - banana
   - apple
   - strawberry

4. Slip in the Snacks
   - chips
   - cookie
   - pretzels
   - cheese & crackers
   - popcorn
Each small cups can be sealed so you can safely put your lunch box into your bag. When the lunchtime you grab your lunch box and one of the flexible lunch post and choose a place where you would like to have lunch. Open the arm of the lunch post then slice your lunch box in the arm to connect the post.
Grab your chair and let your colleagues to join you for this lunchtime.
4. Features and detail

Inside the portion control lunchbox there three cups from different sizes and one block part. These small cups for holding respectively the main food, vegetables, fruits and snacks. Use these cups to prepare a different kind of food to make sure your nutrition is balanced, and not overeat in the lunchtime.

Figure 29- Different size of the cups

Figure 30- The portion control lunch box contained food
The handle of the flexible lunch post can help the user to easily carry it to the inside or outside office area when lunchtime.

Figure 31- Choose the place you like to have lunch
Figure 32- The connection part of the lunch box

The detail about lunch post can secure the lunch box not to fall down.
Figure 33- The cup sitting area provide the space for the drink

Figure 34- The use of metal support frame to ensure the stability of the lunch post at lunch

Figure 35- After the lunch boxes are laid out that everyone will have enough space to eat
5. Model making process

I choose the balsawood and steel stick to built the model of the lunch post.

Figure 36- Model making process1
For the model of lunchbox, I used cardboard and really thin balsawood.

Figure 37- Model making process2
6. Thesis show

Figure 38- Thesis show1
Material selection

1. Material of the traditional lunchbox

The material used in making the lunch box differs from country to country. In China, as the major producer of bamboo, in the past, Chinese people use bamboo for making portable containers for storing food as well as tableware; in Japan, they use wood box with special natural paint to protect the sauce of the food and wrap with fiber to keep the food warm and easy to carry; in Korea, they make lunch box really thin so that it can be easily placed in students’ backpack. (Bramen 2012)

In the 1960s, accompanied by the development of new technology, lunch boxes gradually phased out of the metal material and vinyl plastic lunch box gain enough popularity. The appearance of this lunch box changed and the price also reduced and hence, the number of consumers increased. However, another issue surfaced that vinyl plastic may have bad influence on human health in the long run. Until the beginning of the 21st century, lots of new and health conscious materials were used in making lunch boxes, in order to reduce the chemicals effect on the human body. (Hartman, The American Lunchbox 2012)
2. Material selection

Type 5 plastics contain polypropylene (PP) and are used to make food storage containers like ketchup and syrup bottles, straws and plastic bottle caps. (Creative Mechanis 2014) This material is a microwave safe and dishwasher safe material also the weight of PP is really light.

Figure 40- Polypropylene (PP)

Figure 41- Dishwasher safe

Figure 42- Microwave safe
Business development

1. Packaging Design

1-1. logo design

2-2. Packaging Design

Recycled cardboard is used to make the package, while inside the wrapping paper recommendations for recipes. You can use this recipe to prepare lunch to ensure balanced nutrition.
Figure 44 - Packaging design-outside

Figure 45 - Packaging design-inside
Figure 46- Packaging design perspective view
2. Business promotion

2-1. Business strategy of “Lunch with me”

“Lunch with me” is a design used for providing better experience at lunchtime. One of the indispensable parts is the healthy and balanced nutritional food it allows for lunch. But as a result of the fast rhythm and tight schedule of working days, people may not have enough time to prepare and arrange their food every day. Hence, I came up with a thought about delivering lunch to home.

I thought about collaborating with a food supermarket or restaurant. To make sure that every user can get food with quality assurance. Then I came up with an application named “lunch with me” which will help people choose their lunch in a really easy manner.

Then, after purchasing “lunch with me” lunch box, you can download the application. In this application, you have a wide variety of choices for your workday lunch, and you can also observe the amount of nutrition or calories in this meal. You can choose and manage your lunch plan weekly or monthly. When you finish your lunch order, you will get your lunch every week by contacting the supermarket or restaurant. The only thing you need to do to prepare for your workday’s lunch is put meal in your lunch box which does not only save time but also provide healthier lunch. For the first time you purchase the lunch box and ordered your lunch on the App, you can become a member of the food supermarket or restaurant and you will get a flexible lunch post for free.
2-2. Examples of business working

As an example for collaborate with Wegmans Food Markets. Which is the Best Grocery Store in 2007 recognized by Food Network. (Wegmans.com 2007)

Frist you can purchase the Lunch with me lunch box in all Wegmans food market.

Figure 47- Business development-collaborate1

Figure 48- Business development-collabrate2
Figure 49- Lunch with me Application1
Download the “Lunch with me” APP and select the lunch menu and add to shopping cart

Figure 50- Lunch with me Application2
See the detailed of menu and manage your lunch plan by weekly or monthly
Figure 51 - Shipping from Wegmans

Figure 52 - Five meals pre package

Figure 53 - Stored in the refrigerator to keep fresh

Figure 54 - Open the package and put into your lunch box
Purchase the lunch box

Download App

Order lunch

Membership

Get a flexible lunch post for free

Figure 55- Business development process

Figure 56- Grab your friends and lunch with them
Conclusion

1. Conclusion

At present, along with the rapidly increasing pace of life, a large group of people is living under the working condition with the feature of high intensity and pressure. Such a condition will easily lead to the result that people ignore their health and lower their working quality, thus causing the greater pressure and later forming a vicious circle.

“Lunch with me” is designed to help people have their healthy lunch at lunch time while the working day, and to encourage people to relax and adjust their condition in their daily noon break, as well as to enjoy the lunchtime in which social contact can be conducted. This kind of relaxation of body and mind and supplement of energy will allow people to reduce their pressure and to work and study more efficiently.

In the whole design process, I tried to create an eating environment that can be experienced in every kind of working environment and considered the placing problem of this environment out of dining time in order to save the precious working space. At the same time, I hope that the change of the environment can prevent people from staying at their office area all the time. While they are enjoying the relaxation, they can make full use of the lunchtime, a special time, to have better communication with their colleagues.

At the same time, I also hope that my design can remind the importance of the lunch to the working group, and provide a different experience in busy workdays.
2. Area for further design

The connection part
I'm trying to design more ways to connect lunch box and the lunch post, in order to make it easier for people to use.

User test
I need to interact with more and record more data about the experience when using it, and work with more potential users to test my product concept.

Material
The material I chose for the lunch post was wood but now I think about change it to another lighter material, of course, the lighter material may not as stable as wood when using it. So I will work on that.

Business development
For the business part, I need to get more research about people’s attitude for delivery lunch, and also I need to select a specific area to start. The recycle of the lunch delivery package also need me to think about it.
Bibliography

Bramen Lisa, “The history of the lunch box”

Coleman, Naomi. "What should you be eating for lunch"
http://www.dailymail.co.uk/health/article-24565/What-eating-lunch.html

Creative Mechanis. “Everything You Need To Know About Polypropylene (PP) Plastic”


Hartman Holly. “The American Lunchbox-A magical place where art and sandwich meet”
http://www.infoplease.com/spot/lunchbox2.html


Melodie, Anne. "Importance of Eating Three Healthy Meals a Day"
http://livewell.jillianmichaels.com/importance-eating-three-healthy-meals-day-4813.html

Park Menlo. “Survey Reveals Lunch Break for Nearly Half of Workers Is 30 Minutes or Less; Most Spend That Time Socializing With Colleagues”

Schuna, Carly. “Why is lunch so important”

Snortum, Susie.“In your culture/country what food do you eat generally for breakfast, lunch and dinner?”
The University of Texas at Austin. “Eat Moderate Portions Throughout Your Day”
https://www.healthyhorns.utexas.edu/n_portions.html

Wegmans.. "And the Winner is Wegmans!( April 2007 ).


中国酒店猎聘网“一日三餐的营养比例”
Image Citation

Figure 1- Lunch Atop a Skyscraper, 1932
http://100photos.time.com/photos/lunch-atop-a-skyscraper

Figure 2- Western lunch VS Eastern
l#more-4418 and http://www.houseofjapan.com

Figure 7- How to relax
http://www.wikihow.com/Feel-Relaxed

Figure 8- Outside Eating
http://www.carrickcraft.com/Photographs/Photographs/FIPics/OutsideEating.jpg

Figure 9- Café environment
http://coffeebirmingham.co.uk/category/uncategorized/

Figure 10- Table arrangement in Café environment
http://www.conceptdraw.com/examples/cafe-chair-plan

Figure 11- Portion control
https://www.healthyhorns.utexas.edu/n_portions.html

Figure 31- Choose the place you like to have lunch
http://www.nipic.com/index.html

Figure 40- Polypropylene (PP)