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Wing Chun: Introducing Basic Wing Chun Kung Fu Using Instructional Multimedia

Li Han Huang

WING CHUN

Introducing Basic Wing Chun Kung Fu
Using Instructional Multimedia

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O | Abstract

"Wing Chun Kung Fu 3D" is a conceptual website that offers people a new experience to learn and play Wing Chun Kung Fu via instructional multimedia.

In the website, instead of showing the video or static images in a conventional way, users can learn basic Wing Chun with elements such as three dimensional visuals, animations, and interactivity.

By having a TV-game interactive style to create a pleasant learning environment, I will demonstrate how to use instructional multimedia to teach martial arts through non-traditional methods.

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Website link:
wk3d.com

I | Introduction

Wing Chun is a truly beautiful and practical Kung Fu style in Chinese martial arts, specializing in close range fighting. Without big movements and wasting energy, Wing Chun focuses on efficiency, speed and sensitivity. It has been broadly used for self-defense around the world. Reported by the program "10 greatest weapons ever" on Discovery channel, Wing Chun is recognized to be the greatest weapon of the ten.

The inspiration for developing an interactive Wing Chun Website comes from the movie "Ip Man." It shows me how the traditional martial arts can be so graceful. It does not focus on the power from your body, but rather on the spirit and instant reaction of physical contact. I started to think about how I could introduce Wing Chun to more people. As a designer, I believe that creating an interactive website could be the best method to accomplish this.

By using techniques in instructional multimedia, the website "Wing Chun Kung Fu 3D - WK3D.com" offers people a new experience by which to learn Kung Fu. I hope people will garner more interest and understanding in Wing Chun after playing with this 3D interactive application.

2 | Research

To start this project, there are questions that I have been asking myself: What is Wing Chun? What would people like to see? How to make an impressive website for people who want to learn about Wing Chun? How to develop an interactive application for users to play and learn easily?

In order to answer those question, I organized the research materials into three sections as follow:

2.1 Content Research

Initially, I thought that Wing Chun was just a type of elegant fighting system. After I began my research, I realized it is much more complicated than what I had imagined. The principle and technique are based on sophisticated philosophies of science and the mind. I needed to have a solid understanding of Wing Chun before I could teach people about it.

I began my research by reading books, watching videos, visiting martial art websites, downloading martial arts related iPhone Apps, and training in Wing Chun Kung Fu under the Wing Chun sifu John Landers. The more I learned, the more I loved Wing Chun. I am eager to introduce this martial art to every person around me.

After 3 months of content research, analyzing what people would more likely want to learn in the beginning, and also considering the project time frame, I narrowed down my website content to four main topics: Intro, Forms, Training, and Terms.

[**Books**]

Wing Chun Kung Fu:
Traditional Chinese King Fu for Self-Defense and Health
Ip Chun, Michael Tse

This book is written by Ip Chun, the son of Grandmaster Ip Man. He outlines the art and history of Wing Chun, demonstrates the first form of Wing Chun and discusses the benefits of learning Wing Chun.

Wing Chun Kung Fu
J. Yimm Lee, Bruce Lee

Edited by Bruce Lee, this book delivers a solid introduction of Wing Chun theory and techniques. Demonstrates the attack and trapping movements by showing numerous of photos at different angles.

[**Websites**]

Master Samuel Kwok
http://www.kwokwingchun.com/

This website has large amounts of Wing Chun resources in organized categories. I got the big picture of what my website should include by visiting this site.

Wing Chun Interactive
http://www.wingchuninteractive.com/

This website has similar concepts with my website. It teaches Wing Chun forms and application using 2D Flash interactive animation. Even though the movements are well-demonstrated in the text, the animations are not easy to understand. As my main information architecture reference, I visited this site many times throughout my research and design process.

[**Training**]

Samurai Martial Arts
1512 SpenceportT Road Rochester, NY 14606

Martial art is the art of body motions. Learning by doing is better than it's learning by reading or observation alone. I learn Wing Chun Kung Fu under the Wing Chun sifu John Landers at Samurai Martial Arts. I started as a beginner at 100 minutes per class, Two to three days a week. I was promoted to the advanced level and received a blue sash after training for one year. The training not only helped me to further understand Wing Chun for my project needs, but also it is of great benefit for me to have self-defense techniques and an added ten pounds of muscle.

2.2 Visual Research

The look and feel of the website plays a big role in the user's first impression. People tend to have more interest in visiting high visual appeal websites. Therefore, I would like to create a visually appealing environment to boost the users' interest in Wing Chun Kung Fu.

I consider Wing Chun a new brand that needs to be introduced to the market. From branding, identity, logo, color to fonts, I have researched many successful sports-related brands, such as Nike, Adidas, UFC, EA Sports, Wii and Xbox Kinect games.

I was planing to choose a direction that is a realistic, sporty, and highly polished interface such as EA NBA Live. After learning Wing Chun in more depth and analyzing the pros and cons of these sports brands, I had a clear idea about what I wanted in the visuals.

Simple, clean, minimal, and non-commercial are the key elements that match the principles of Wing Chun.

Jordan Alpha Trunner
http://www.nike.com/jumpman23/trunner/index.html

This is a interactive site for Jordan's training shoes. I was inspired by it's simpleness and the minimalistic masculine look. Using white color for the texts, UI, vector logo, and geometric icons, red for the call-to-action buttons, and having instructor standing in the web page center with the studio light as background behind, easily leading users into a modern training atmosphere.

2.3 Interaction Research

It is the way to interact with people that makes this project complicated. To create 3D lessons, I needed to learn 3D modeling, texturing, rigging, lighting, and rendering. To build an interactive and responsive website, I need to improve my ActionScripts 3.0 and HTML skills. Also I researched many different user experiences to possibly apply to my project. Below are the main resources that helped me in my interaction research.

[**Websites**]

Wrangler FW11 Mark Your Territory
http://www.thefwa.com/shortlist/wrangler-fw11-mark-your-territory/

This is an advertising campaign promoting Wrangler's FW11 collection. Users can drag the buttons through the guiding paths to control the models and the interactive scenes. I think it would be interesting to create the lessons with this kind of technique in which users can learn each movement step-by-step by following the guiding buttons. Then, I started a long programming journey in ActionScript 3.0.

Adventures in AS3
http://as3adventure.blogspot.com/

This is a blog that provides many useful ActionScript 3.0 examples. I later created a function that allows the user to drag the button to control the 3D motions, it was developed based on a formula in the article "Drag + Ease".

ZAHIA
http://www.zahia.com/

This is Zahia's high fashion and very elegant official website. I was inspired by its interactive floating banners that allow the user to navigate sections they would like to read with smooth transitions.

Lynda.com
http://www.lynda.com/

An online video training website where I learned Cinema 4D and ActionScript 3.0.

GREYSCALEGORILLA
http://greyscalegorilla.com/

This is my favorite online resource for Cinema 4D and After Effects training. Not only does it teach me how to do it, but it also teaches me how to make things look perfect. His training videos are always practical and trendy. In addition, they are free.

3 | Process

This section includes my thesis parameters and six phases of my design and development processes, includes design ideation, 3D design, logo design, information architecture, visual and UI design, interaction design, and usability testing.

3.1 Thesis parameters

< Goals >

- Introduce Wing Chun Kung Fu to more people.
- Develop a new experience for people to learn basic Wing Chun via instructional multimedia.
- Build audience's confidence and help people prepare themselves before finding a Sifu or training teacher.

< Background >

- The current Wing Chun instructional websites mainly show photos, graphics, and videos. The only one that has Flash interactive lessons, is not designed well in usability.
- Wing Chun is not as popular as the other martial arts, such as Brazilian Jiu-Jitsu, Karate, Judo, boxing, Muay Thai, and Tai Chi.

< Target Audience >

My target audience is all the people who at least know how to use the Internet and who have an interest in Wing Chun, self-defense, or any type of martial art.

< Softwares >

Maxon Cinema 4D, Adobe Photoshop, Adobe illustrator, Adobe After Effects, Adobe Dreamweaver, Adobe Flash.

3.2 Design Ideation

For this project, my central idea is to create a 3D interactive website to introduce basic Wing Chun Kung Fu. The reason I use 3D is its flexibility. Once I build a model with rigging controllers, I can easily to show any kind of movements with any angle of view, and render it to whatever platform I want. Besides, it is fun to watch. For the gamers and young people who do not do any kind of exercise, it could attract them to move their bodies and hopefully become more physical fit.

Also, I would like to use the combination of multimedia techniques that I learned from RIT Computer Graphics Design, such as 3D design, post-production, interaction design, typography, instructional multimedia, and user interface design, to prove that I am able to use them well already. Even though it is really challenging, I am really excited to make it work.

3.3 3D design

For the design process, I started with the most complicated and time-consuming part, 3D design, that includes two character modeling with rigging and texture mapping, and making animations and rendering them for interactive applications at the end.

‹ Character Modeling ›

There are two characters in my project, one is for the form training and the other is the assistant role for demonstrating the attack and trapping movements part.

The first character (see Fig. 1) has a friendly Asian look, consisting of mid-20th century Chinese martial arts training outwear, and a sash around the waist. It is made with low-polygons for rendering easily.
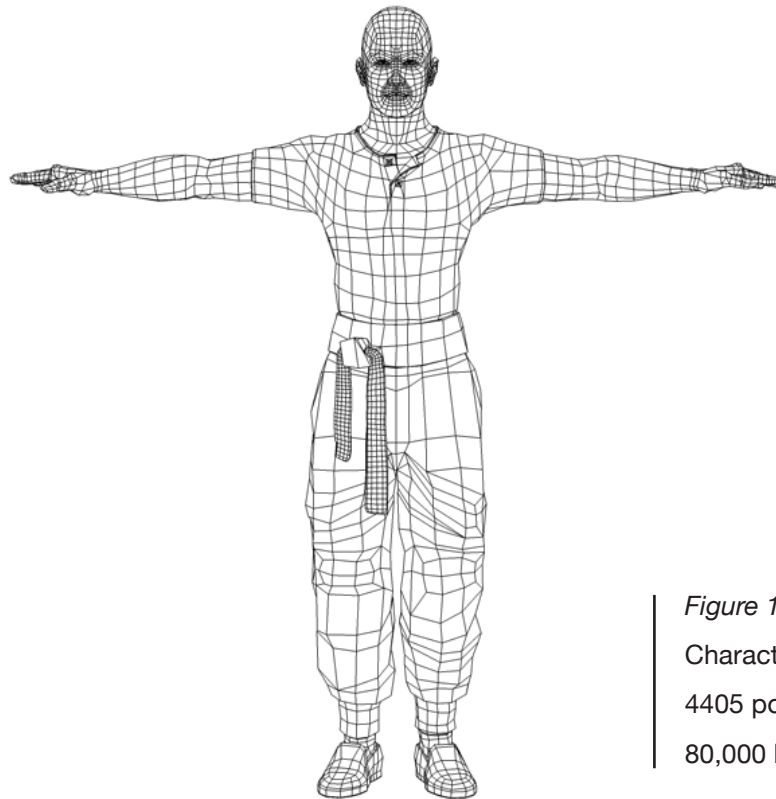
Figure 1.
Character One
4405 polygons
80,000 hairs

The second character (see Fig. 2) is modified based on the structure of the first one. It has shorter hair and is Caucasian looking in a modern training outfit.
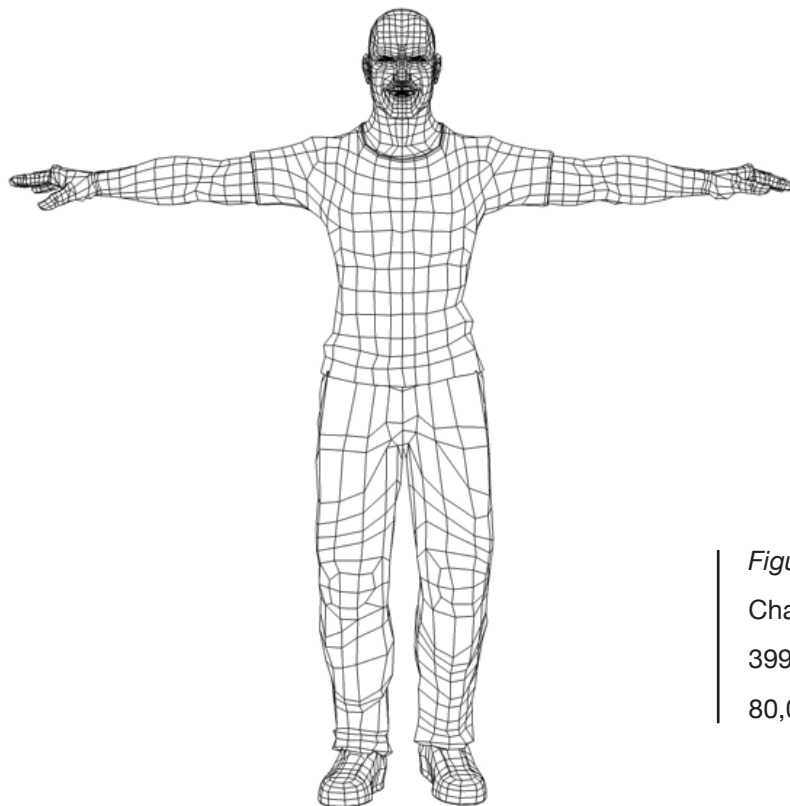
Figure 2.
Character Two
3999 polygons
80,000 hairs

< Rigging >

I was planning to use a motion capture system to record the motion from myself. However, I found that system cannot capture hand movement and it is impossible to have two people together in the motion capture studio. I changed my plan to build rigging systems for my two characters.

Both of them have body controllers, finger control systems, and face rigging controllers (see Fig. 3, Fig. 4, and Fig. 5). For the Character 1, there is one more controller to control

the belts' rigging. They can be animated either by gravity and collision, or by manual keyframing.

The most difficult part is to rig the shoulders and the arms. They showed strange bends and unnatural twists when I started to animate them. Therefore, I spent more time adjusting the polygons, joints, and weight-painting until they looked more realistic.

▲ *Figure 3.* Rigging system and controllers

Figure 4 (Head, eyes, and face rigging controllers):

Head Target + ▽
H_Str: 100 % ◁
Head_XY: ▽

Eyes Target + ▽
Eyes_XY: ▽
Eyes_Z: 25 % ◁

2pHead_CON+++ ▽
Face_Aim
NeckUpV_mix
Reye_Close: ▲ 0 % ▽
Leye_Close: ▲ 0 % ▽
L_Eyes_Smile: ▲ 100 % ▽
R_Eyes_Smile: ▲ 38 % ▽
Angry: ▲ 100 % ▽
L_Smile: ▲ 0 % ▽
R_Smile: ▲ 0 % ▽
Oh: ▲ 0 % ▽
Laugh: ▲ 82 % ▽
Frown: ▲ 0 % ▽
L_Sour: ▲ 0 % ▽
R_Sour: ▲ 0 % ▽

Figure 5 (A XPresso for left foot):

L_Foot_CON+++
L Knee
L FootRotation
L ToeWiggle
L BallRotation
L ToeRotation
L HeelRotation
L IndividualToggle
L FootRoll

Range Mapper — Input Output
L UpperLeg.Pole — Position . X
L_Foot_CON+++ — Rotation . H
Condition — Switch / Input / Output / Input
L_Foot_CON+++ — L BallRotation / L ToeRotation / L HeelRotation
L ToeWiggle — Rotation . P
L Ball Rotation — Rotation . P
L ToePivot — Rotation . P
L Heel Rotation — Rotation . P

▲▲ *Figure 4.* Head, eyes, and face rigging controllers   ▲ *Figure 5.* A XPresso for left foot

▲ *Figure 6.* Face rigging

‹ Texture Mapping ›

For the textures, my goal is to create a simple and clean look and feel. I got fabric textures from scanning my clothes and adding some subtle clothing wrinkles by drawing on the map to make the models look softer. Below are the maps for my characters (Fig. 7 and Fig.8):
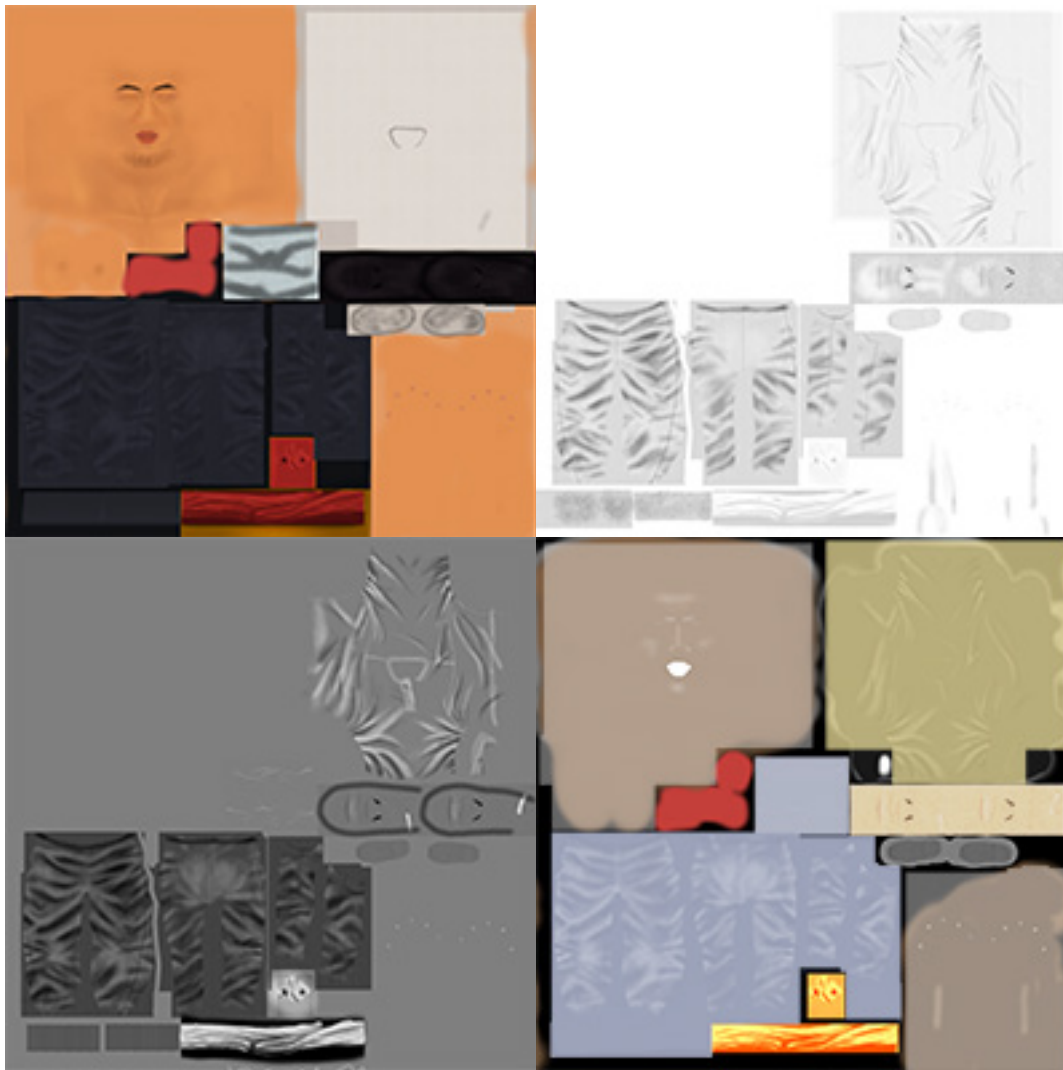
Figure 7. The textures of character one

1. Color map   2. Diffusion map
3. Bump map   4. Specular map
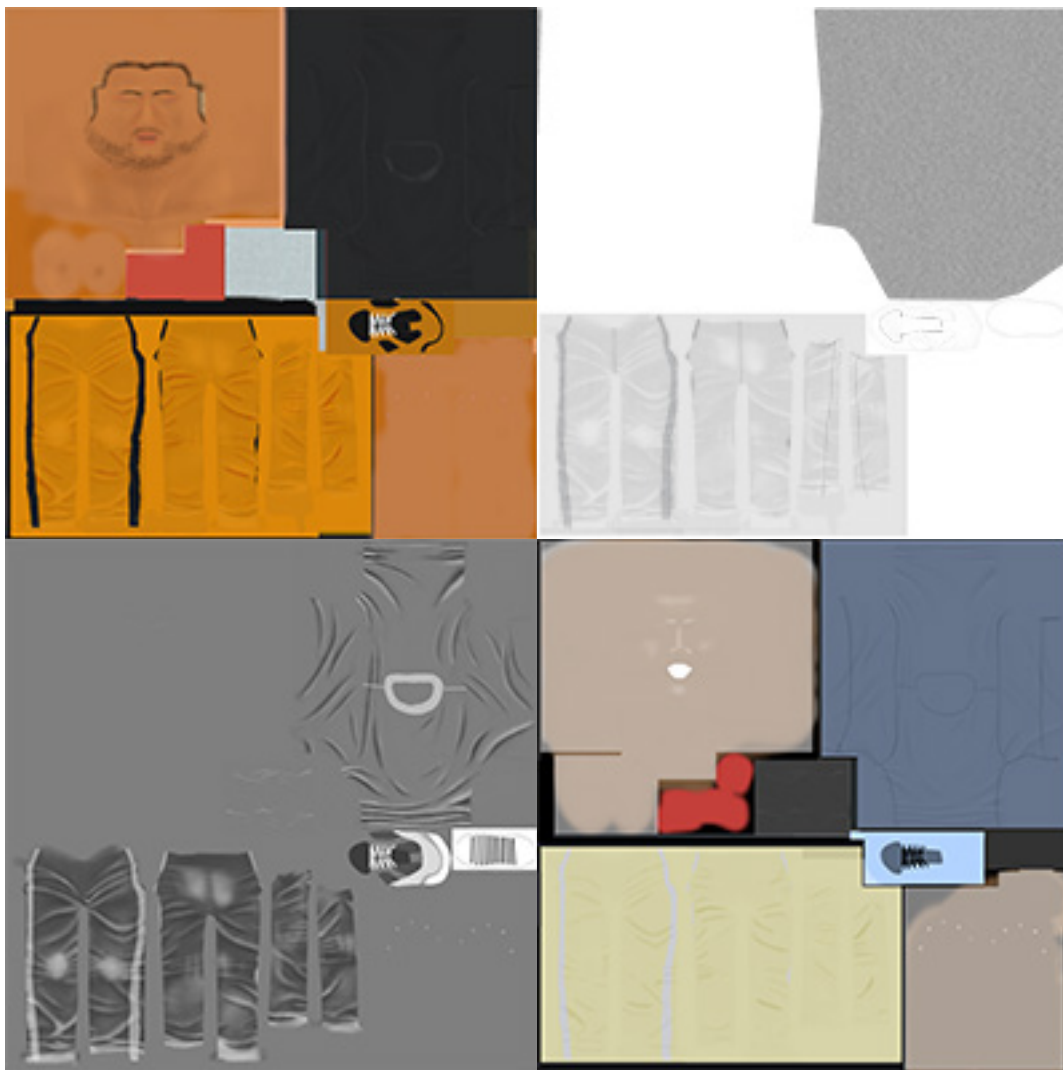
Figure 8. The textures of character two

1. Color map   2. Diffusion map

3. Bump map   4. Specular map

< Animation >

The animation process is the most interesting part for me. Since I did not plan to use motion capture studio, I had to animate the motion to be as natural as possible. I learned the importance of secondary movement from my 2D and 3D animation classes, to make my character's movement more realistic. Also, I recorded my movements and imported the video to After Effects to see how much time I took to finish each movement, and how the other parts of my body would follow the moves. Below are the screenshots of my animating screens (Fig. 9).
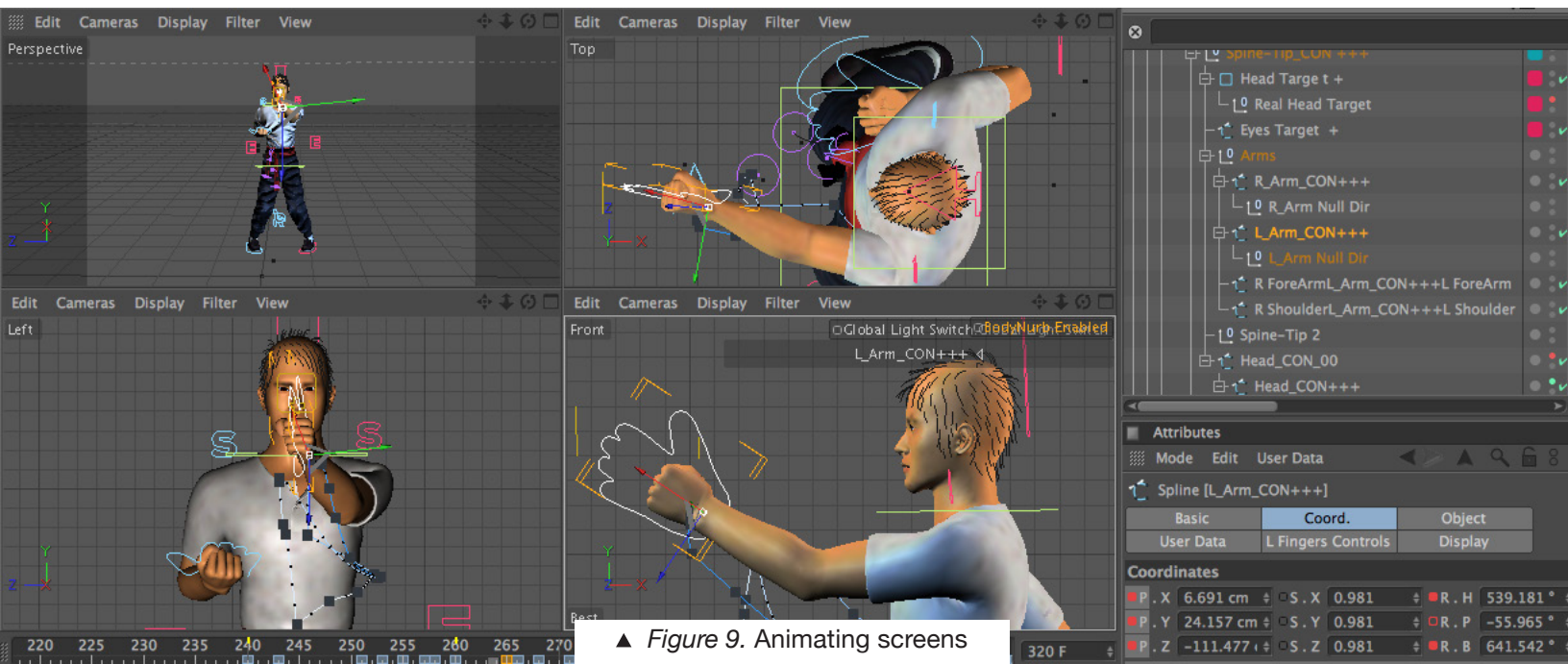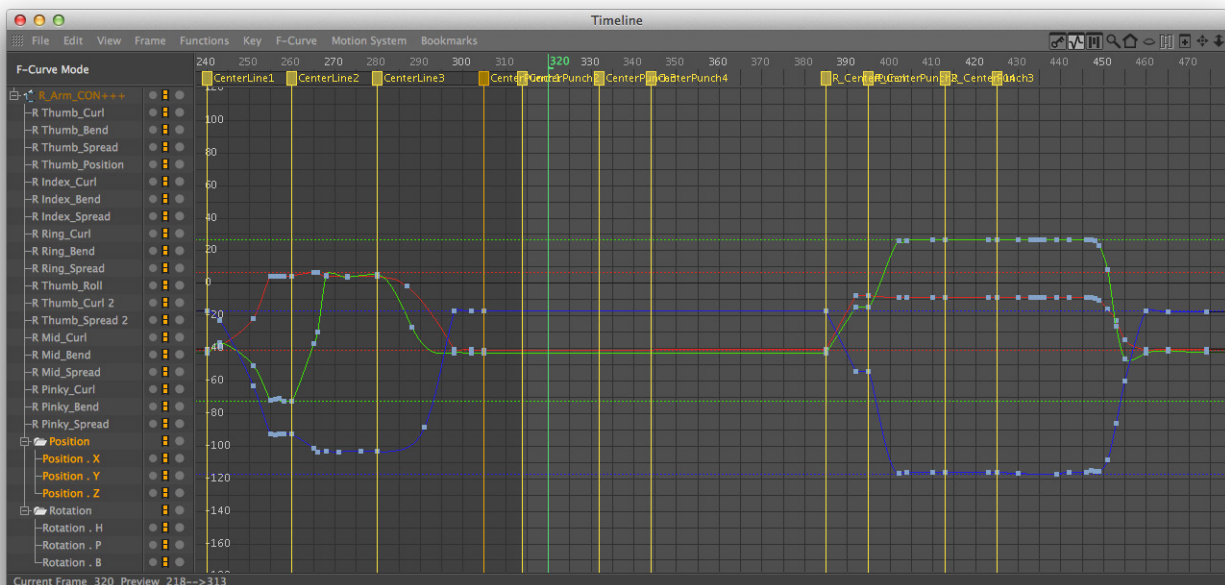
▲ *Figure 9.* Animating screens

‹ Lighting and Rendering ›

I would like to create a natural, clean and bright atmosphere for presenting the movements.
I used a Sky Shader Object and three or four soft boxes lighting in the scene and turned on
Global Illumination and Ambient Occlusion. I spent a long time trying to find the balance by
adjusting the value of their angles, intensities, colors, and shadows. I then Rendered out
the animation with separated shadow passes, Ambient Occlusion passes, and Reflection
passes for the post-production needs in After Effects. (See Fig. 10 and Fig. 11).

▲ *Figure 10.* Final render - one

▲ *Figure 11.* Final render - two

3.4 Logo design

Similar to Tai Chi, Wing Chun theories are relevant to Chinese Taoism philosophy Yin & Yang. Yin could be understood as negative, dark, or soft and Yang could be understood as positive, light, or hard. Everything in the natural world has both yin and yang aspects. Each of them cannot exist alone, they are complementary to each other as a whole object.

In Wing Chun, we can never use strength against strength. Yin is soft or defense and Yang is hard or attack. We use soft movements to redirect the hard force from opponents and use it as our hard power to fightback.

For the logo development, I initially designed a sharp fist shape (see Fig. 12). I thought it did not match the Wing Chun's philosophy and it looked too sporty. Then I combined the Yin-Yang concept to my logo design, visualized the fist and defensive palm to the logo and transformed the lines and organized the shapes many times to the final geometric logo (see Fig. 13).

◄ *Figure 12.*
Logo design process
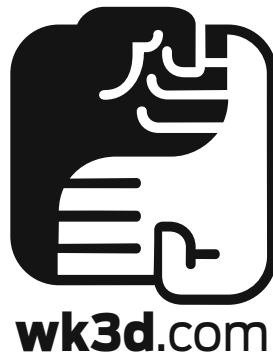
◄ *Figure 13.*
Final logo

3.5 Information Architecture

To build the website, the first step is to create my information architecture. After the research and the learning process, I have a better idea about what Wing Chun is, and what people would like to learn in the beginning. I then decided to adjust the website structure of my proposal and narrowed down the contents into four main topics:

Intro	Introducing what Wing Chun is, discuss the history, people who learn Wing Chun, principles and references I recommend.
Forms	Teaching three Wing Chun forms by showing 3D interactive animation with floating description step-by-step.
Training	Teaching basic self-defense techniques by showing 3D interactive animation with floating description step-by-step.
Terminology	Showing interactive flash cards with the terms used in Wing Chun Kung Fu.

Based on the topics above, I started to draw the sitemap and wireframes. This process not only helps me to visualize the navigation work flow and the website structure, but also makes me rethink the time frame and the amount of content. Below are the site map (Fig. 14) and wireframes of the website (Fig. 15 and Fig. 16):

▲ *Figure 14.* Site map

1440

376　　210　　210　　210　　210

462

WING

CHUN

KUNG

FU3D

100

INTRO　　FORMS　　TRAINING　　TERMS

15
15

925

15

10
overlay　　10
overlay　　10
overlay　　10
overlay　　10
overlay

LEGEND | ■ Door　□ Menu　■ Buttons

Resizable

Li Han　|　RIT CGD　|　Thesis Project 2011 - 2012

P. 2
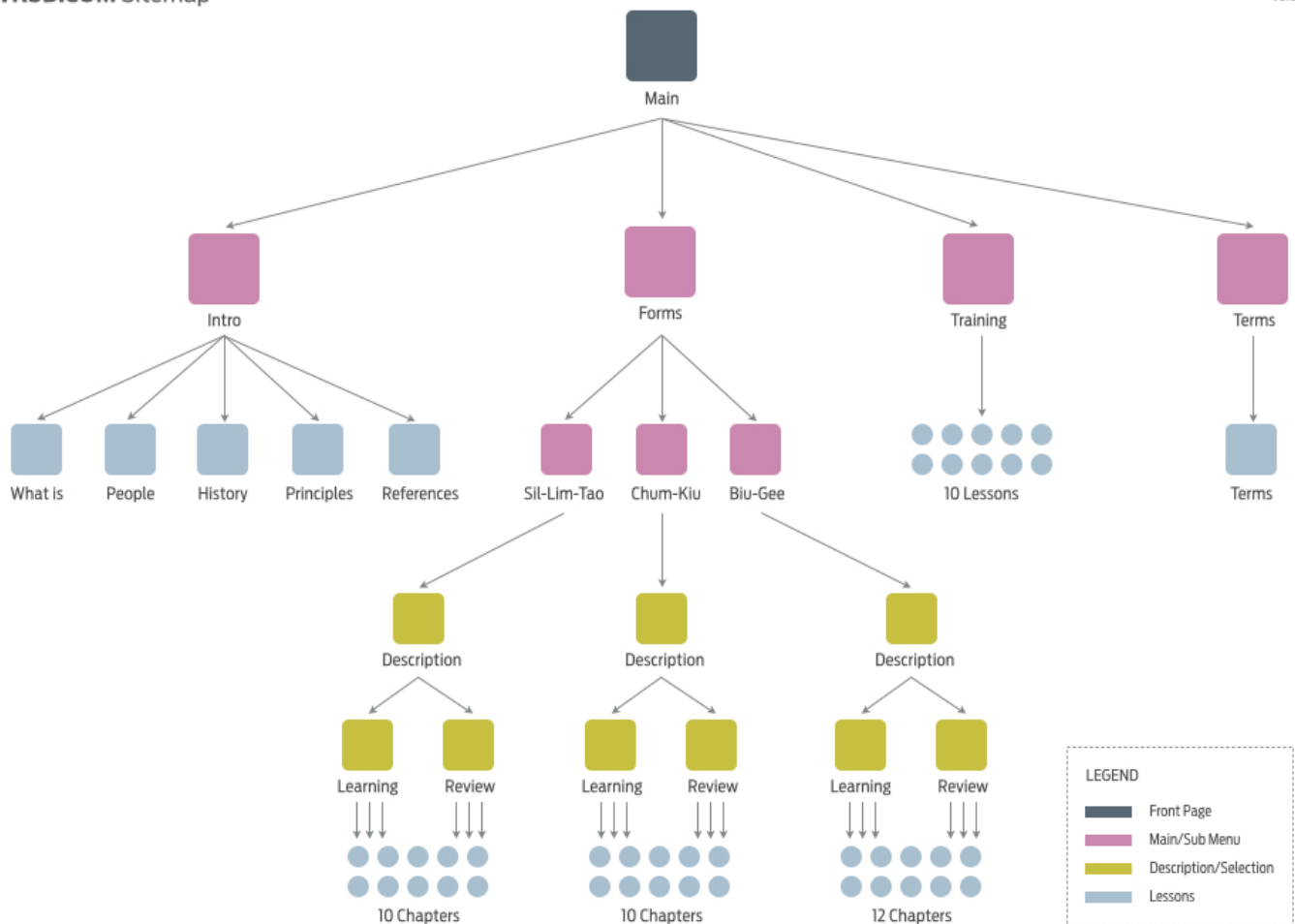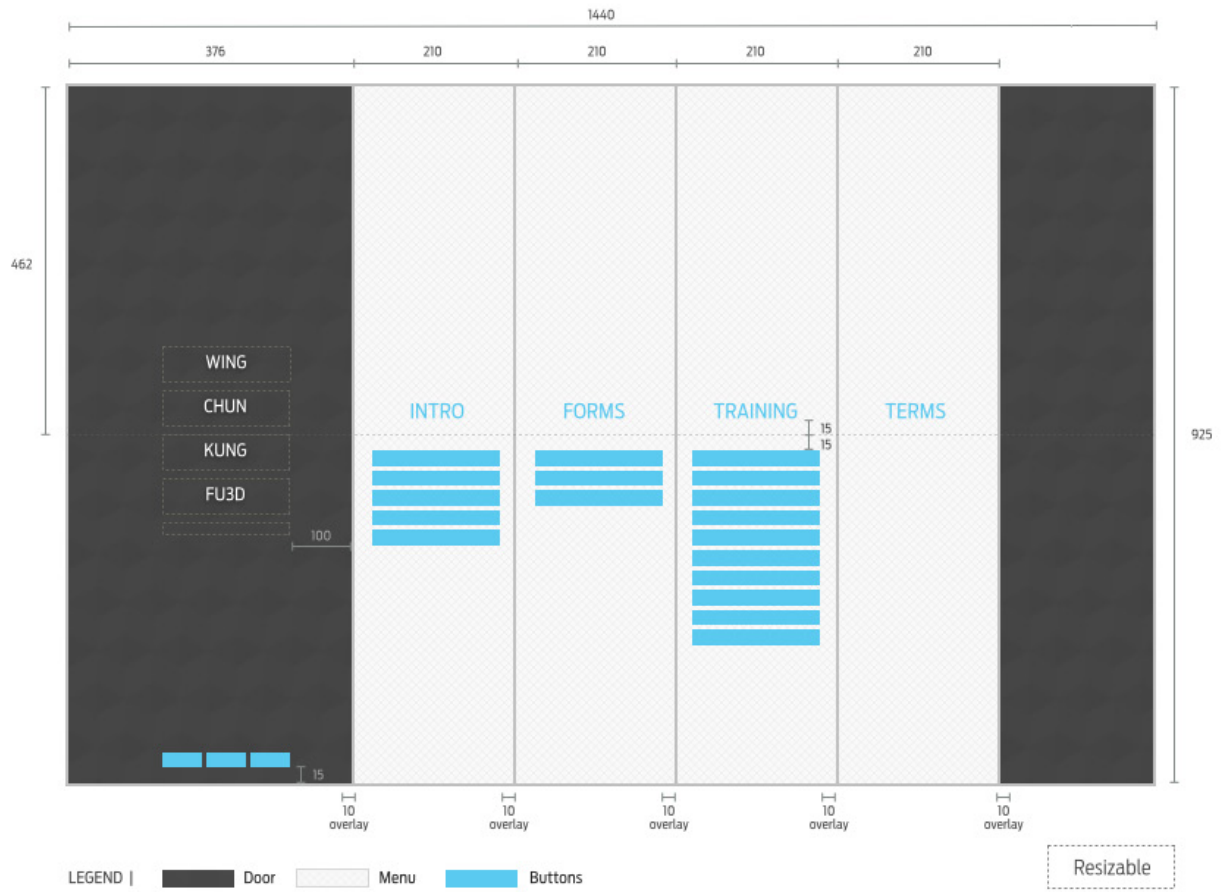
▲ *Figure 15.* Homepage wireframe
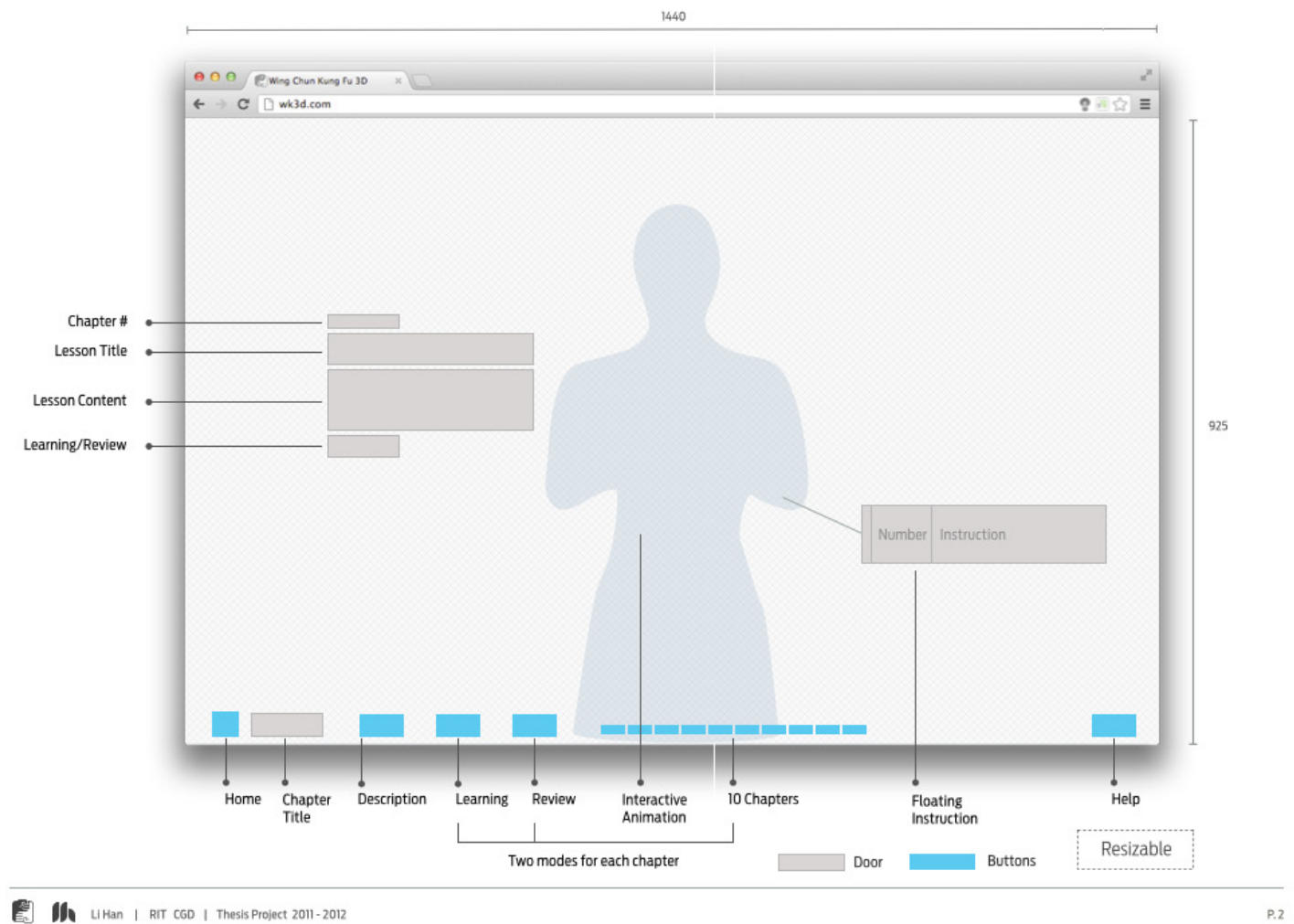
▲ *Figure 16.* One of the internal pages wireframe

3.6 Visual & UI Design

< Font Selection >

I tested many different combinations during the font selection. At the beginning, I tried san-serif for the headers. They looked too bold and too solid. Then I tried serif fonts, but they are too soft and too traditional. Finally, I found a new typeface named St Marie from the category of slab serif. Even if it looks thin, we can still feel its strength, flexibility, and resilience, just like the characteristic of Wing Chun. Therefore, I purchased it from www. myfonts.com and used it for the headers.

For the paragraph, I found a font, Syntax, that is easy and comfortable to read. And for the navigation buttons and menu, Antenna is good for the user to quick recognize.

St Marie Light

AaBbCbDdEe 1234567890

St Marie ExtraLight

AaBbCbDdEe 1234567890

St Marie Thin

AaBbCbDdEe 1234567890

Syntax Series Book

AaBbCbDdEe 1234567890

Antenna Regular

AaBbCbDdEe 1234567890

‹ Color ›

As yin-yang is the key concept for the logo design, I applied its color code, black and white as the main color of the whole website. Then I used a light blue and yellow tone as background to differentiate the learning and introduction sections.

The reason I used a blue tone is because the first thing the Wing Chun practitioner needs to do is to stay calm. Blue can help people to keep focused and calm. The reason for using a warm yellow tone is that the introduction section is an area to discuss Wing Chun and its history. Light yellow could be a connection between readers and the ancient story and theories.

Primary Colors
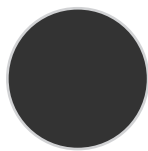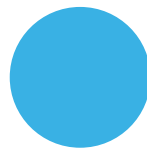
#333333   #FFFFFF   #39B1E4   #288E99

Secondary Colors
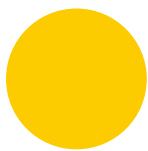
#FDCC00   #D1171E

Background Colors

#D8D9DB   #EAEAE0

< User Interface >

For the interface design, in order to let users immediately have a general idea about what the contents are in the site, I created four large banners as the entrances to connect to my four main topics (Fig. 17). Also, each banner has its sub-menu, so users can easily dive in to the specific topic they would like to reach. The key concepts of the navigation design are simple, clear, and straightforward.

▲ *Figure 17.* Homepage design

Next, I mimicked the ancient scrolls to design the Intro (Fig. 18). Users can scroll horizontally to browse the content. Also, users can quickly access specific content or go back to the homepage by using the pop-up menu on the top left. In each section, I designed many icons and links for people to tap and read further information.

People

Who Have Learned
Wing Chun

Bruce Lee

Chinese-American act...
Known for: *Enter the...*

Bruce Lee began training in Wing Chun
Kung Fu at 13 under grand master Yip Man
in 1954. Many ideas from Wing Chun such
as the intercepting attacks, speed, timing and
efficiency are included in his Jeet Kun Do.

▶ Bruce Lee's amazing Kung Fu
one inch punch @YouTube

▶ Wing Chun Bruce Lee
@YouTube

...vney Jr. ⊕

...Sherlock Holmes, The Avengers*

Jackie Cha...

Hong Kong actor, dire...
Known for: *Rush Hou...*

...afor ⊕

...inebacker
...ttle Seahawks, Arizona Cardinals*

Nicolas Ca...

Academy Award-winn...
Known for: *Face/Off...*

...ng ⊕

...choreographer and director
...Martial law*

Cameron Diaz ⊕

American actress and former model.
Known for: *There's Something About Mary, Vanilla Sky*

Christian Bale ⊕

Actor and producer.
Known for: *Barman: The Dark Knight , The Fighter*

CIA
FBI
French RAID
German SEK ⊕

U.S. Navy Seals
U.S. Army Special Forces
Hungarian Police Special Forces
HK Airlines Flight Attendants ⊕

INTRO

- What is
- People
- History
- Principles
- Reference

1

What is
Wing Chun

Wing Chun is a modern and practical style
in Chinese martial art, specializing in close-range
fighting. Without big movements and wasting
energy, Wing Chun Kung Fu focuses on efficiency,
speed and sensitivity. Whether you are a man
or woman, skinny or heavy, young or old,
Wing Chun can be suitable for everyone.

Scroll to Control ▶▶▶

3

History

The Origin of Wing Chun

About 300 years ago, Shaolin temple
was burned by the Manchu government.
Many monks and nuns were killed.
Only five masters were be able to escape.
One of them was Nun Ng Mui, who hid
in the White Crane Temple.

Because the troops of Manchu knew
Shaolin Kung Fu already. Ng Mui wanted

to create a new style to compete
with traditional Shaolin style. One day,
she was inspired by a fighting between
crane and snake and then refined
the new style that she had created.

This new style has no restriction to the
people's figure and strength. No fancy
movements or wasteful motions.
It is faster, more effective and efficient.
People could master this style in just few
years, rather than a couple of decades
for any traditional Shaolin Kung Fu.

Ng Mui later taught the new style to Yim
Wing Chun, an intelligent and beautiful
young girl, to fight with the local bully
who wants try to force Wing Chun
to marry him and had been threatening
her father for a long time. After learning
this new technique, Yim was then able
to beat the bully in a fight. Ng Mui later
on named this new style, Wing Chun.

More Wing Chun History

▶ The History and Origin of Wing Chun -
Written by the late Grandmaster Ip Man
@www.kwokwingchun.co.uk

▶ Ip Man Biography - The life of the martial
arts legend @www.kwokwingchun.co.uk

INTRO

- What is
- People
- History
- Principles
- Reference

4

Principles

1 Center Line

Center Line theory is the foundation of the
Wing Chun system. It revolves around the idea
that there is an imaginary line drawn from
the top of the head to the groin. Many vital
points, such as nose and stomach, are on this
line. While protecting his own center line,
the practitioner need to focus on attacking his
opponent's center line. Also, the center line
would absorb more energy than other areas.

- Skull Joint
- Eyes
- Bridge of Nose
- Tip of Nose
- Philtrum
- Chin
- Adam's Apple, Larynx
- Windpipe
- Heart
- Sternum
- Solar Plexus
- Stomach
- Groin

Center Line

2 Economy of Motion

Wing Chun is a system which is created to simplify
the attacking movements and shorten the reaction
time. Any unnecessary flashy techniques
or wasting energy moves need to be avoided.

3 Contact Reflexes

In order to shorten the reaction time, Wing Chun
practitioners need to build the muscle memory
and develop sensitivity for their arms. This way,
one won't need to spend too much time observing
opponent's movement, thinking how to defend,
then eventually retaliating. In Chi Sau(sticky hands)
training, students can develop their fighting instincts.

HOME

- What is
- People
- History
- Principles
- Reference

5

Reference

Books

Wing Chun Kung Fu: Traditional Chinese
Kung Fu for Self-Defense and Health
Ip Chun (Author), Michael Tse (Author)

Wing-Chun Martial Arts: Principles & Techniques
Yip Chun (Author), Danny Connor (Author)

Wing Chun Kung-Fu
J. Yimm Lee (Author), Bruce Lee (Technical Editor)

Websites

Master Samuel Kwok
http://www.kwokwingchun.co.uk/

Master Lo Man Kam
http://www.lomankamwingchun.com/

Si-Fu Eric Oram
http://www.lawingchun.com/

Wing Chun
Exploring the Art of Wing Chun Kung Fu Online
http://www.wingchunonline.com/

Wing Chun @Wikipedia
http://en.wikipedia.org/wiki/Wing_Chun

Movies

Ip Man
http://www.imdb.com/title/tt1220719/

Ip Man 2
http://www.imdb.com/title/tt1386932/
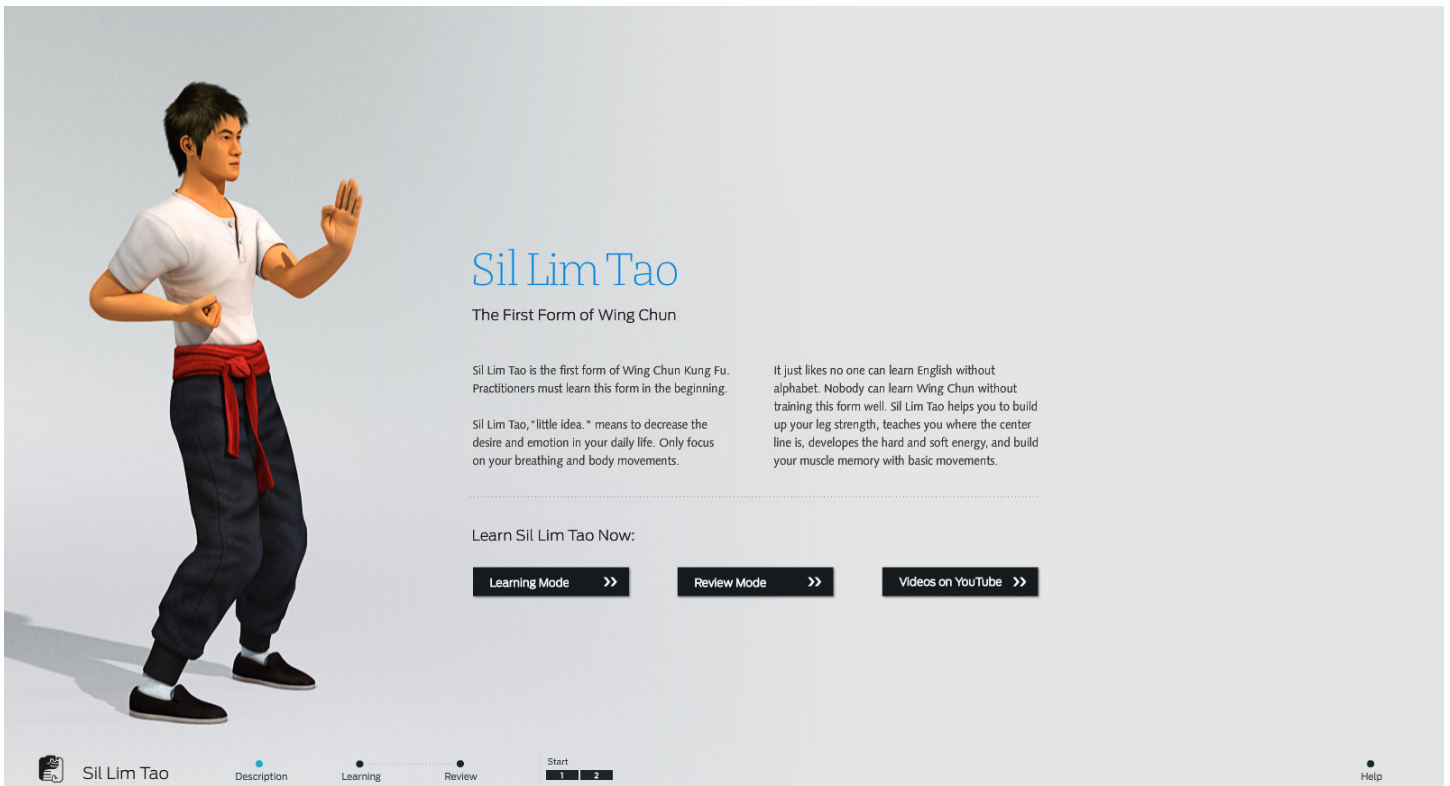

▲ *Figure 18.* Introduction section

For the Forms, Training, and Terms page, I would like to have users focus on my full-screen interactive lessons, so I placed all the navigation at the bottom of the screen. The style is also clean and minimal as the homepage design (see Fig. 19).

In the Forms and Training section, users can choose learning mode or Review mode depending on their needs. Learning mode is designed for beginners. By dragging and releasing the buttons, users can learn the movements step-by-step (Fig. 21, 22, and 23). In Review mode, users can watch the whole movements by dragging their mouse. Dragging right plays the animation forward and left plays it backward (Fig. 24 and 25).

Because these two modes are a little confusing for the first time users, my chief adviser recommended that I to add an instruction screen to help them understand the interface. Therefore, I added a help button on the right corner for users to click and watch the instructional animation in the pop-up light box window (Fig. 26 and 27).
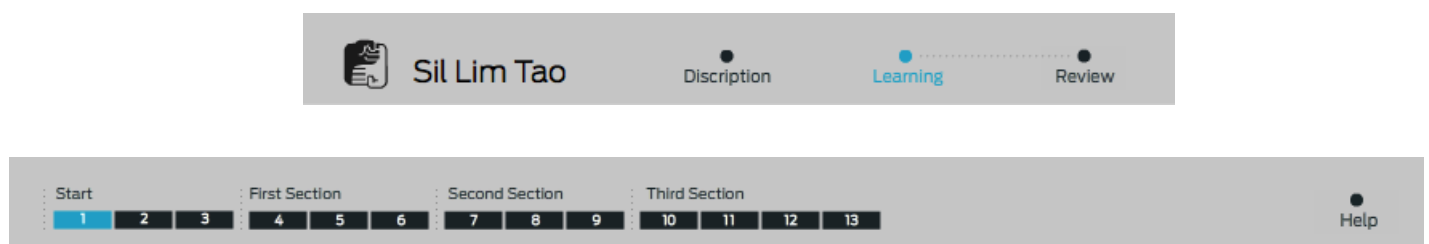
▲ *Figure 19.* Navigation design in Forms section

▲ *Figure 20.* Description page in Forms section

▲ *Figure 21.* Learning mode - 1

Start - 1

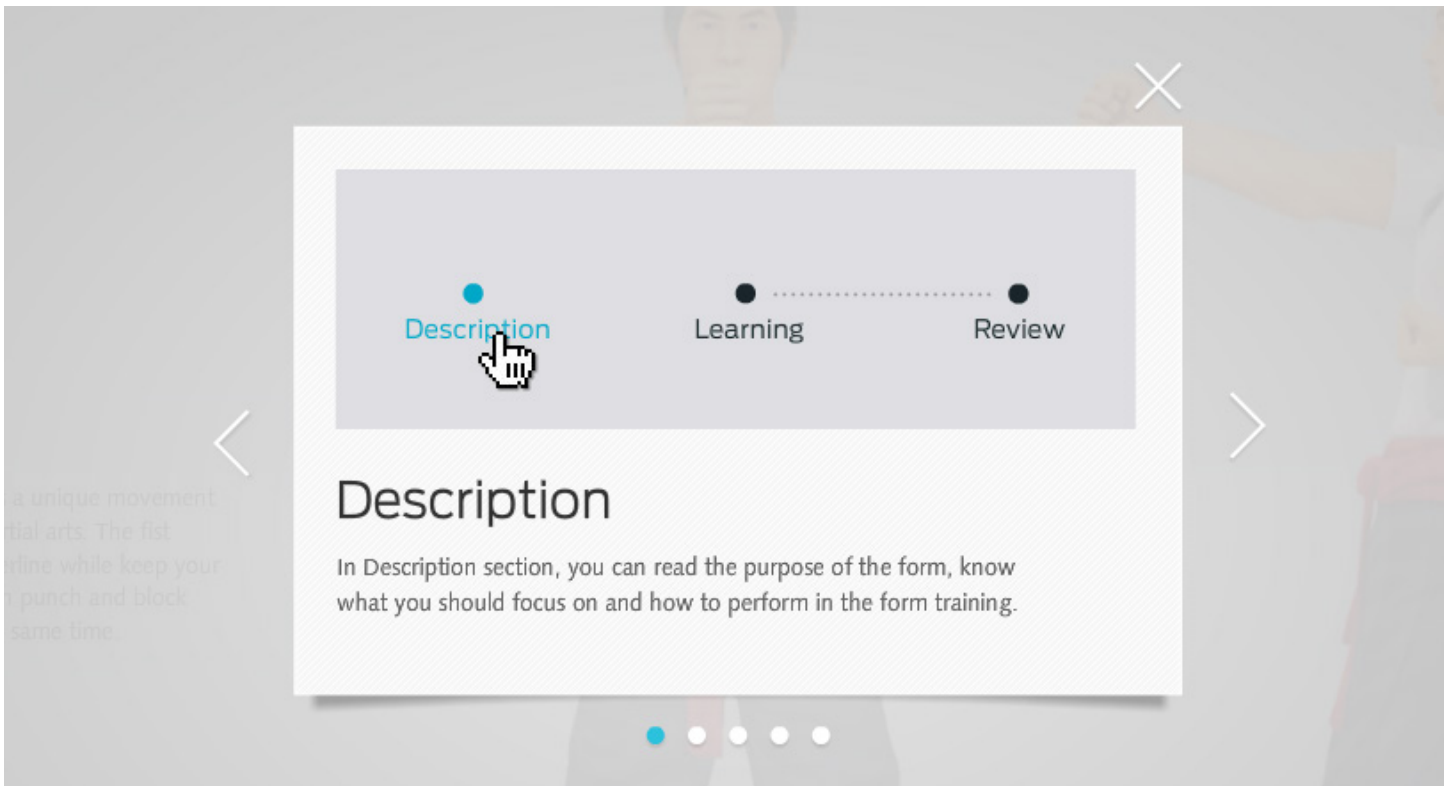## Opening Stance

The training stance in Sil Lim Tao is called Yi Gee Kim Yeung Ma. The practitioner performs Sil Lim Tao with this stance throughout the form. This stance is not use for real fighting. It helps you to build up the leg muscles and improve your body balance.

Learning Mode

4 Transfer your weight on the ball of your feet and move your heels outward.

Sil Lim Tao   Description   Learning   Review   Start 1 2   Help

▲ *Figure 22.* Learning mode - 2

Start - 2.1

Mark the Centerline

The movement with double Gaun Sau (splitting arm block) and double Tan Sau (palm up arm block) shows where the centerline is.

Learning Mode

3 Bring your hands back to the resting position.

Sil Lim Tao   Description   Learning   Review   1 2   Help

▲ *Figure 23.* Learning mode - 3

Start - 1

Opening Stance

The training stance in Sil Lim Tao is called Yi Gee Kim Yeung Ma. The practitioner performs Sil Lim Tao with this stance throughout the form. This stance is not use for real fighting. It helps you to build up the leg muscles and improve your body balance.

Review Mode

Sil Lim Tao   Description   Learning   Review   Start 1 2   Help

▲ *Figure 24.* Review mode - 1

Start - 2.2R

Punch

The Wing Chun punch is a unique movement compares with other martial arts. The fist travels through the centerline while keep your elbow in. So that you can punch and block with your forearm at the same time.

Review Mode

Sil Lim Tao   Description   Learning   Review   Start 1 2   Help

▲ *Figure 25.* Review mode - 2

▲ *Figure 26.* Instruction - 1
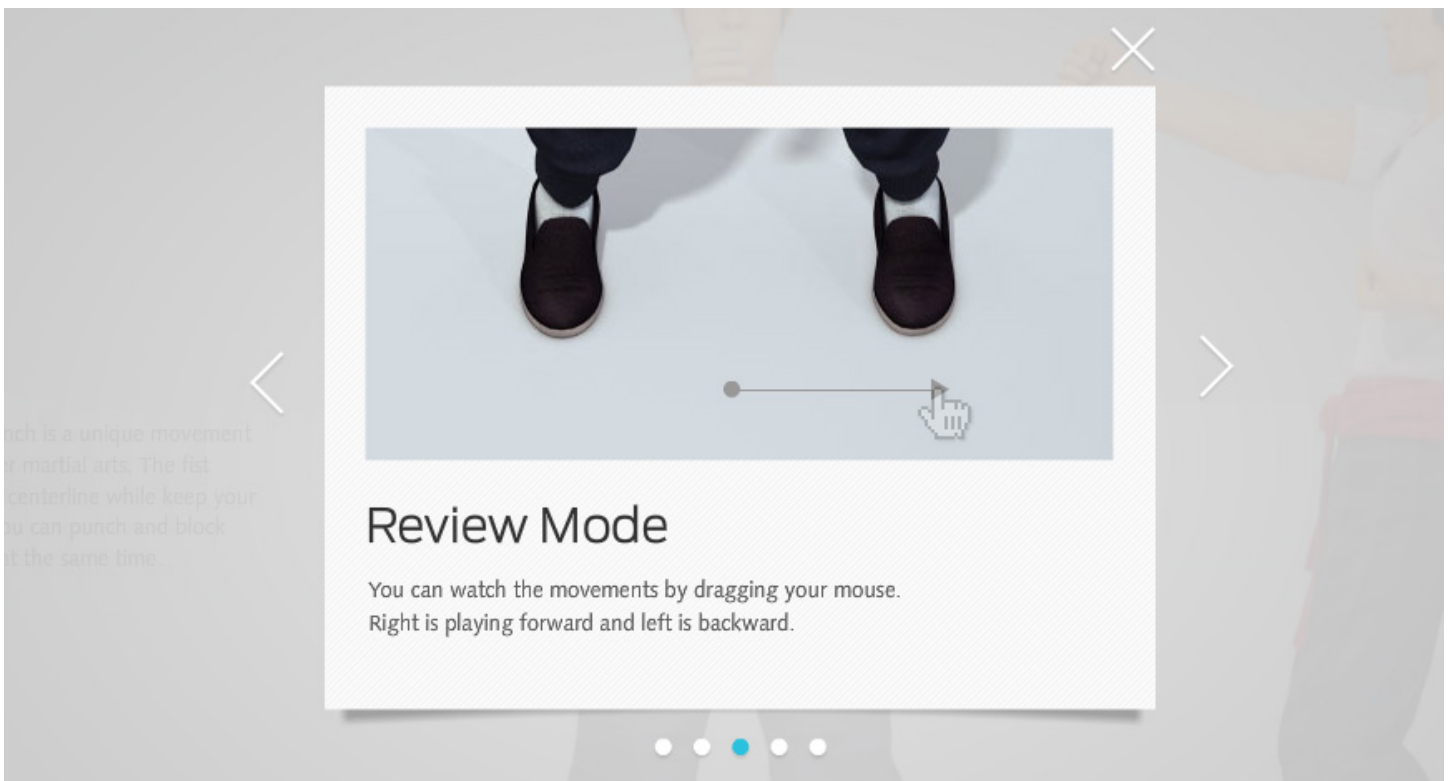
▲ *Figure 27.* Instruction - 2

3.7 Interactive design

After creating the animations, information architecture, logo, and basic interface, the last thing I need to do is to create interactive functions with the programming in HTML and Flash ActionScript 3.0. There were a lot of mathematical calculations and many back-and-forth animation adjustments for creating the interactions.

This is the most challenging and important part in the design process. This is the final step to create a new learning experience for people to learn Wing Chun. Below are the main interactive functions I designed for the website:

< Animated Menu >

◄ *Figure 28.*
Animated menu

I create a smooth animated menu on the homepage navigation. When the cursor is on either one of the banners, that banner will expand and show the sub-menu. The other banners will also shrink at the same time.

< Responsive Webpages >

▲ *Figure 29.* Responsive webpage -1

▲ *Figure 30.* Responsive webpage - 2

In order to provide users with a better interactive experience, I designed the full-screen style website and have the site dynamically fits into different sizes of browsers.

< Horizontal Parallax Scrolling >

▲ *Figure 31.* Horizontal parallax scrolling effect

I used a horizontal parallax scrolling effect for designing the Intro page. Users can read the contents by scrolling their mouse up and down, then the titles, paragraphs, and images will scroll horizontally with different speeds.

< Smart Menu >

There are many small lessons in the Forms section, and each lesson has two learning options. I created a menu that allows user to switch between Learning mode and Review mode easily. Also, the menu can memorize the lessons users have read already, so they will not be confused when changing the lesson.
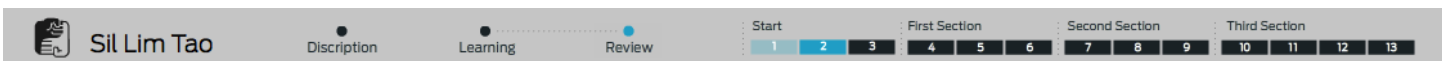
▲ *Figure 32.* Smart menu

## ‹ Instructional Slide Buttons ›
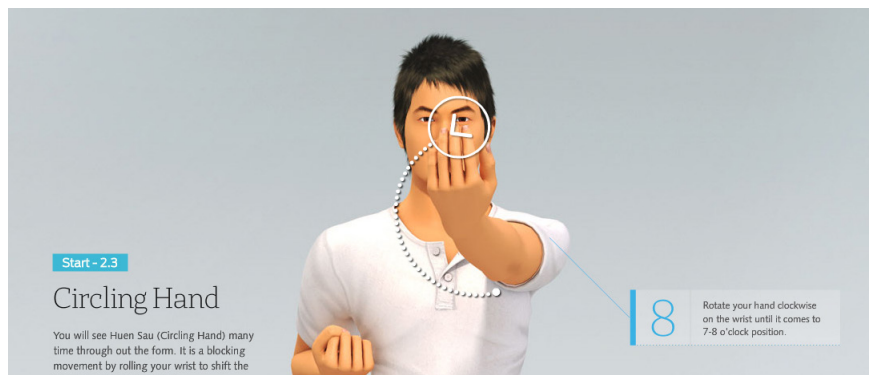
▲ *Figure 33.* Instructional Slide Buttons

I designed many instructional slide buttons for users to learn step-by-step. Users can watch the character's movements while dragging the buttons. Each movement will be completed when users drag the button to the end of the dotted path. After a movement is done, the next slide button will show up for the next move.
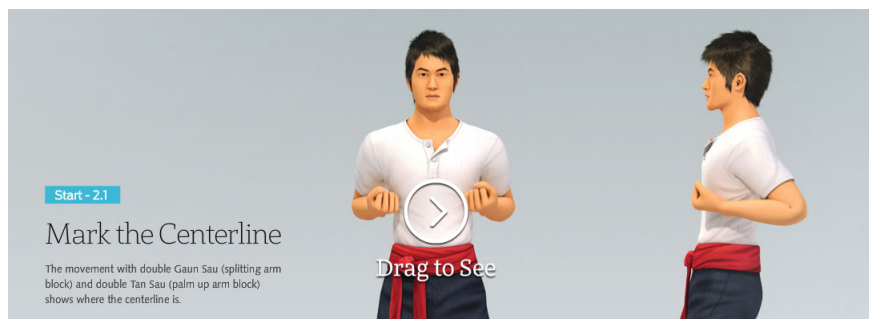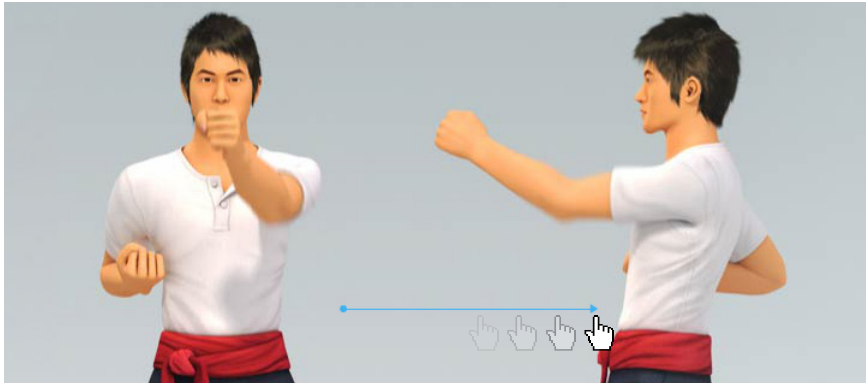
‹ Floating Notes ›
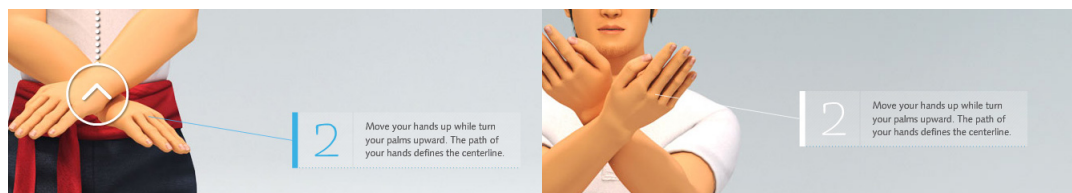
▲ *Figure 34.* Floating Notes

Besides showing the movements with the animation, I designed floating notes that show the step numbers and the text instructions. They will follow the body and change the position with smooth transitions. The notes will become white when users complete a movement.

‹ Drag to See ›

◀ *Figure 35.*
Drag to see

▲ *Figure 36.* Floating Notes

In Review mode, I made a function for users to drag and see the movement with two aspects. The longer the distance you drag, the more video frames will be played. Dragging to the right will play the animation forward and dragging to the left will play it backward.
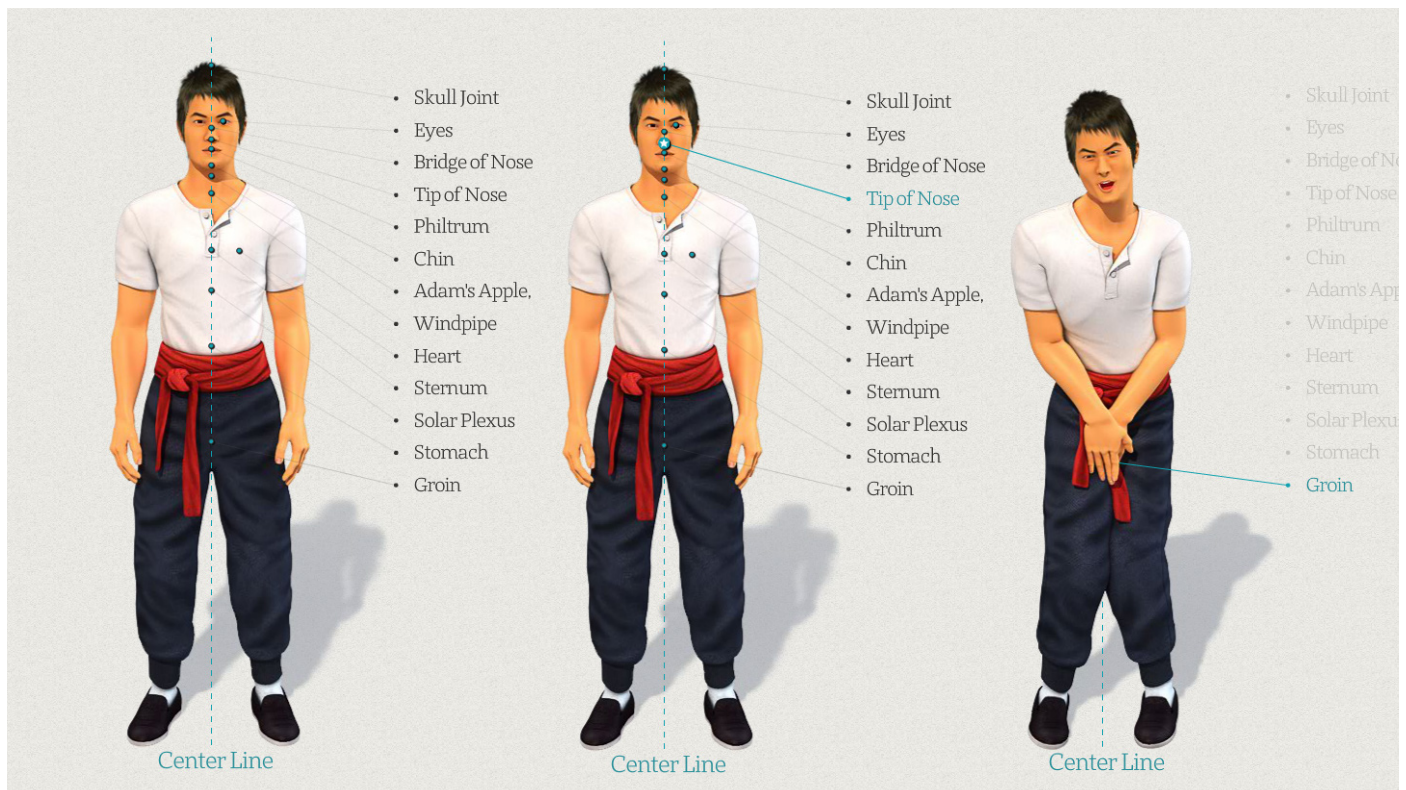
< Interactive Images >

To have the introduction more interesting to see, I added interactive features to the images. When the cursor touches the images the images will move or interact with the cursor.

▲ *Figure 37.* The image changes angle slightly while the cursor is moving

▲ *Figure 38.* The character bows when the cursor is on him

- Skull Joint
- Eyes
- Bridge of Nose
- Tip of Nose
- Philtrum
- Chin
- Adam's Apple,
- Windpipe
- Heart
- Sternum
- Solar Plexus
- Stomach
- Groin

Center Line

- Skull Joint
- Eyes
- Bridge of Nose
- Tip of Nose
- Philtrum
- Chin
- Adam's Apple,
- Windpipe
- Heart
- Sternum
- Solar Plexus
- Stomach
- Groin

Center Line

- Skull Joint
- Eyes
- Bridge of Nose
- Tip of Nose
- Philtrum
- Chin
- Adam's Apple,
- Windpipe
- Heart
- Sternum
- Solar Plexus
- Stomach
- Groin

Center Line

▲ *Figure 39.* Showing the vital parts on the center line with Interactive animations

3.8 Troubleshooting

I have been facing many problems throughout my entire project. For the most technical problems such as software crashes, rigging, rendering, and programing problems, I looked for online resources or used the Help feature in the software to find the solutions.

My professors and friends also shared their valuable experiences with me which helped me to avoid the problems they encountered. They supported me by telling me what solutions they used when they faced similar issues. Through discussion with others, tutorials and finding new solutions by problem solving I was able to complete this project.

4 | Summary

4.1 Usability Testing

To design a user-centered application, it's very important for me to collect usability feedback at the end of my design process. The feedback will help me to understand the first-time users' behavior, and then further improve the usability of my site.

The procedure is to have people visit my website and play with each section of the application without any previous instruction, so I can observe if there is any navigation or interaction difficulty, any visual or text content that they cannot easily understand, or any bug that needs to be fixed.

I received much valuable feedback such as the inactive navigation should be less dominant than the active one. Instead of using the help button, the usability instructions may need to show up automatically for the users to have a basic idea about how the application works before the lesson starts. When a movement is completed, the instructional buttons should jump to the next step without waiting for users to release the button. Additionally, the Enable Deblocking feature needs to be on to help improve image resolution.

I greatly appreciate my advisors, classmates, friends, and all who participated in my usability testing process.

4.2 Thesis Defense Feedback

I received many positive feedback during the thesis defense. There were also three small issues that committee members pointed out for me to think about.

One is that transition of the door opening and closing between the two lessons may be too redundant. It would be better to have this transition only during the main section changes.

The other is the design consistency issue between the Intro section and the Forms section. My idea was to provide users more visual variation to extend users' interest. However, I think it would help if I added more visual connections between the two different sections in future updates.

The third one is that even I have had two modes for the form learning, Professor Marla Schweppe would like to see those movements to be performed in the real speed. I think that is a great idea I should add to my lessons so users would have better understanding of how the whole movements would performed in the normal speed.

4.3 Emails from Users

I have received many e-mails from users from various countries since I launched my website. Most of them told me that my website is amazing and wondered when I would be able to update more content to the site. It is very encouraging to hear from them, and makes me want to add more lessons as soon as possible. Below are some of the E-mails I received from users:

11/11/13

super cool

Hello

http://wk3d.com is amazing! Continue building it! :)

- *Benoit Falardeau*

8/30/13

Wing Chun

Hola, Mailto soy Ignacio de Argentina, tu pagina es muy buena, pero no la has terminado, ¿Necesitas ayuda?

- *Ig Her*

8/28/13

wk3d.com Completion Estimate

I was just curios, I know you said that this was for a thesis project, but do think there's any chance that this could be completed ever?

Not rushing you or anything, I think it would just be awesome to have a reference like this to be able to point to.

Thank you so much for your time.

- *Greg Bedsaul*

10/30/12

wing chun kung fu 3D

Bonjour , j'aurais aimer savoir pourquoi on ne peut pa lire la suite après le sil lim tao ?

merci :)

- *Geo AMAT*

5 | Conclusion

The goal of my thesis project is to demonstrate how to use instructional multimedia to teach Wing Chun Kung Fu by non-traditional methods. After one year of hard work, I have finally achieved this goal by organizing a substantial amount of information collected from the web, books, and sifu, using all the skills and techniques I have learned from Computer Graphics Design at RIT to build this 3D interactive application.

The significance of this project is that I proved interactive multimedia is able to improve users' leaning experience and helps to earn people's interest in Wing Chun.

I learned so much from the design process. I have learned how to combine 3D design with web design to create an interactive application. I have learned many design techniques from 3D, graphic design, to user experience design. Also, I learned an important lesson about time management. I did not know exactly how much time it would take to finish this project. The more new techniques I learned, the more elements I wanted to put into my project. As a result, I spent much more times than I had predicted. I should have planned better to make sure every design process followed its own schedule.

I hope this site will inspire more people to learn Wing Chun. I will continue updating and adding to the website contents. I may also transfer the coding program from ActionScript 3.0 into HTML5, in order to keep up with current trends for the increasing number of mobile and tablet users.

I greatly appreciate my committee members for their instruction and direction. Thanks to my friends and website visitors who gave me all the support and encouragement.

6 | Appendix

6.1 Thesis Proposal

Thesis Proposal for the Master of Fine Arts Degree

Rochester Institute of Technology
College of Imaging Arts and Sciences
School of Design
Computer Graphics Design

Title: Wing Chun: Introducing Basic Wing Chun Kung Fu Using Instructional Multimedia

Submitted by: Lihan Huang

Date: October 21, 2009

Thesis Committee Approval:

Chief Adviser: Associate Professor Chris Jackson, Computer Graphics Design

_____   _____

Signature of Chief Adviser   Date

Associate Adviser: Professor Marla Schweppe, Computer Graphics Design

_____   _____

Signature of Associate Adviser   Date

Associate Adviser: Visiting Professor Shaun Foster, Computer Graphics Design

_____   _____

Signature of Associate Adviser   Date

School of Design Chairperson Approval:

Chairperson, School of Design: Patti Lachance

_____   _____

Signature of Chairperson   Date

Thesis Proposal for the Master of Fine Arts Degree

Wing Chun: Introducing Basic Wing Chun Kung Fu Using Instructional Multimedia

by Lihan Huang

1. Thesis Problem

How can instructional multimedia help designers use new technologies to create a martial arts tutorial website that focuses specifically on Wing Chun?

2. Problem Statement

I am designing an interactive application that introduces basic Wing Chun, using techniques in instructional multimedia. I will illustrate how web designers could add interest and effectively teach users about Wing Chun.

3. Abstract

"Wing Chun" is a conceptual website which offers people a new experience to learn and play Wing Chun Kung Fu via instructional multimedia.

In the website, instead of showing the tutorial video or static images in a conventional way, users can learn basic Wing Chun using three dimensional visuals, animations, and interactivity. Also, in order to develop and keep user's interest in this martial art, there is a arcade style game for the users to play. By using a TV game interactive style to create a pleasant environment for learning, I will demonstrate how to use instructional multimedia to educate users about Wing Chun using non-traditional teaching methods.

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Wing Chun: Introducing Basic Wing Chun Kung Fu Using Instructional Multimedia

by Lihan Huang

4. Project Description

4.1 Overview

Wing Chun is a truly beautiful and practical Kung Fu style. The system relies on biomechanics. It has been broadly used for self-defense around the world. Also, a specialty of Wing Chun is close-range combat. French police use it for training their special force EIRS members. Reported by the program "10 greatest weapons ever" on Discovery channel, Wing Chun is recognized to be the greatest weapon of the ten.

The inspiration for developing an interactive Wing Chun Website comes from the Chinese movie "Ip Man". The movie made me aware of the fact that traditional martial arts can be graceful. It does not focus on the power from your body, but rather on the spirit and instant reaction, and your mind. I started to think about how, as a designer, I can introduce Wing Chun to more people. Creating an interactive website could be the best way to do it.

The website "Wing Chun" will be designed for young people who have an interest in Wing Chun. The main structure will be built in Flash. To make it interesting, I will use some TV game elements, visual and audio, in the website interface to catch people's attention.

Also, there will be a three dimensional tutorial to allow the user to clearly understand the basic form. In this section, I will build a character in Maya and use motion capture technology to record a person's motion and two people's reaction. I will combine this with an interface for the user to choose play, stop, pause, and change speed. The target is to let them learn the basic form efficiently.

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by Lihan Huang

Further, an arcade style game will be designed for the user to play after the user gets tired of practicing. There will be 5 levels in the game. The player has to focus on opponents' random gun attack (with pre-action for player to react), then dodging(Z key) with attack(X key). After knocking out all the opponents, General, who is the master of Karate will appear at the end of each stage of the game. The game will use Flash and ActionScript 3.0 for coding.

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4.2 Target Audience

Age: 6~60 (focusing on 6-30)
For all people
a. who have an interest in Wing Chun
b. want to learn Wing Chun
c. who want to learn self-defense?
d. love Chinese martial Art
e. who are a fan of Fan of Bruce Lee or Yip Man
f. for health

Persona A
• Name: Peter
• Age: 15
• Job: student
• Interests: Movies, TV Games, Skateboarding, Asian Culture, Bruce Lee

Peter is a big fan of Bruce Lee and is trying to find some
Kung Fu information and lessons on the Internet. He wants
to be stronger in order to protect himself.

Persona B
• Name: Sayaka
• Age: 28
• Job: Teacher
• Interests: Yoga, Swimming, Zen philosophy

Sayaka is a English teacher. She has been learning Yoga for 3 years. She wants
to take the women's defense class to protect herself from sexual harassment.

4.3 Software and Hardware Requirements

• MAC OSX of Windows Vista or Windows XP
• Flash Player 10 for Firefox or Explorer.
• Speaker

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5. Survey of the Literature

For this project, I needed to know the strengths and weaknesses of the existing martial arts teaching materials; so I researched several websites, books, videos, and Apple Apps. Also, for designing the interface, I visited several TV and PC game websites to know what are the new interactive methods online and how I might make the website more interesting. The following are the references that will help me to develop the Wing Chun website.

5.1 Instructional Websites

"Wing Chun Interactive"
http://www.wingchuninteractive.com/

This website teaches Wing Chun using 2D animation. Although it shows front and side perspective views and descriptions are clear enough, the motions look very stiff. If they improved the animation, this website would be wonderful. The website doesn't belong to any club or company. It just leaves some spaces for Google advertising. From this site, I gained inspiration for my website. It gave me the rough direction to start my work.

"5min | Life Videopedia"
http://www.5min.com

5min is a platform for people to share the instructional video online. The main difference between 5min and YouTube is 5min has a interface for users to choose the speed of the playing rate, brightness, and watch frame by frame. It's a great concept for a tutorial website that allows people to learn from video in detail easily, and that is just what I want to do in the Wing Chun website.

5.2 Graphical User Interface

"IP-Man"
http://www.ipman-movie.com/opening_en.html

This is the Wing Chun movie, IP-MAN (12 December 2008 release) official website. The main buttons are located on different parts of the wooden dummy, which is for Wing Chun practicing. When users roll over it, a hand or leg will show up and hit the dummy with the sound of Kung Fu yelling that skillfully brings the movie stage to the webpage. Also, to create a dramatic atmosphere, it combines a vintage image with Chinese painting to design the background.

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"Borderlands" by Gearbox Software
http://www.borderlandsthegame.com/

This is a website that introduces the TV game. By using the amazing gaming environment and ambient sound, the site makes people curious about the game and makes them want to stay in this site longer and discover what will happen after clicking each button. It provides me an idea about what the interface and music could do for creating a game style website.

5.3 Kung Fu Games

"Kung Fu Master"
http://www.everyflashgame.com/game/71/Kung-Fu-Master.html
It was the first beat 'em up arcade game developed by the Japanese company Irem Corporation in 1984. The concept came from of Bruce Lee's Game of Death. The player can punch and kick in a standing, crouching or jumping position. There is a boss at the end stage. The player has to defeat him before entering the next floor. We can still find those elements in most beat 'em up games and I will use them as the structure of my interactive game, too.

"Stick-Fu" by Mobirate
iPhone App game
Stick-Fu lite is a free iPhone beat 'em up game. Players use the left thumb to control left and right, the right thumb to punch and kick. The interface is so clear and simple that it allows the player to play it without thinking. Beautiful graphics and fluent movements are the features that make the game interesting. If a player wants to play more, they have to pay $0.99. This game inspires me to create an interesting game to promote my website and earn some money back at the same time.

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5.4 Instructional Games

"Wii Fit plus- Yoga" by Nintendo
Nintendo Wii (May 21, 2008 released)
Wii Fit is a great interactive game that allows players to watch the 3D tutorial from the screen and move their bodies. There is a balance board to detect players' balance and then show the diagrams on the screen so players can adjust their posture easily. The 3D tutor, a gentle voice guide, an elegant simple diagram and relaxing ambient sound makes this game popular for young ladies. If Wing Chun is taught using those elements, people can learn it more easily.

"My Fitness Coach" by UBI Soft
Nintendo Wii (December 2, 2008 released)
This game teaches fitness dance with a 3D tutor. The special fact I learned from the game is that they use a timeline for players to know when they should change the motion. It is really helpful when teaching Wing Chun with slow motion.

5.5 Books

"Complete Guide to Kung Fu Fighting Styles" by Jane Hallander
UNIQUE PUBLICATIONS., 1985
This old book introduces all kinds of Chinese Kung Fu with realistic black and white pictures. It talks about Wing Chun's history and fighting theory. While the other books make me confused about the Wing Chun branches, this book gives me clear information.

"Kung Fu: History, Philosophy, and Technique"
UNIQUE PUBLICATIONS., 1982
This book discusses about the philosophy of Taoism before talking about the external Kung Fu techniques that inspired me to show more inner philosophy in the website in order to let people know that the goal of Wing Chun learning is not only for fighting and defense, but to learn respect, filial piety, and morally correct manners first.

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by Lihan Huang

6. Design Concept

6.1 Flowchart
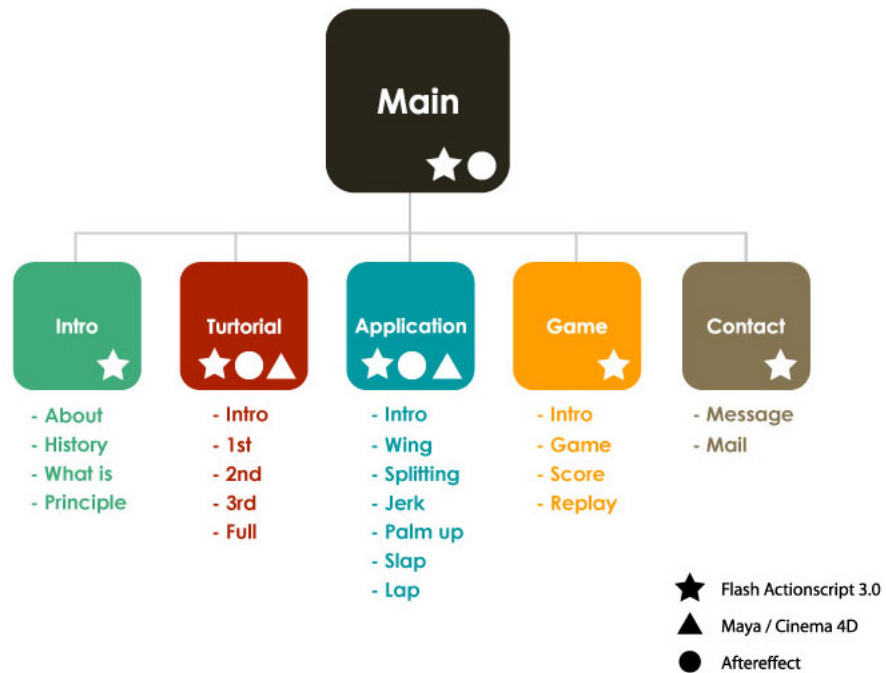
Thesis Proposal for the Master of Fine Arts Degree

Wing Chun: Introducing Basic Wing Chun Kung Fu Using Instructional Multimedia

by Lihan Huang

6.2 Lesson Sketch

- Motion capture for body
- Maya for modeling, hands, and detail (The character will be Human-looking)
- AfterEffect for motion graphics, text and editing
- ActionScript 3.0 for users to adjust fast/slow, volume and control the timeline
- There will be 3-5 Seconds for each tutorial. However, by using different angles and slow motions, it will be 30 Seconds.
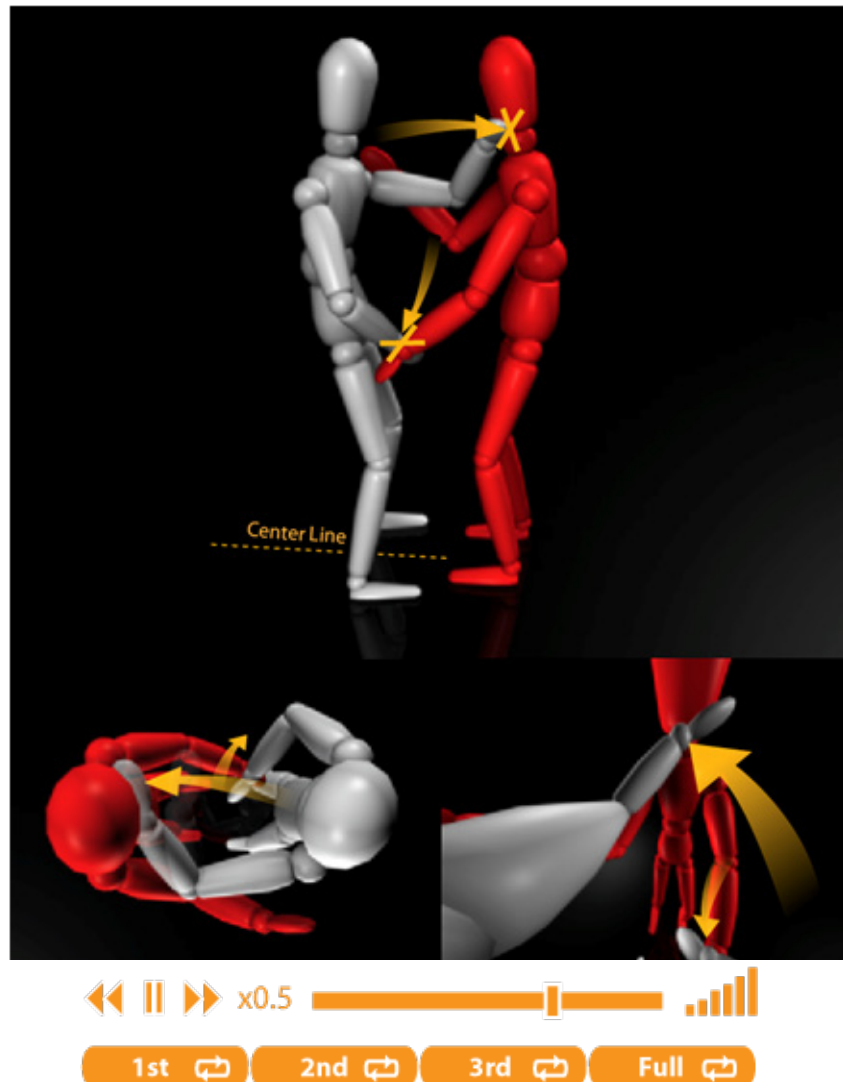
Thesis Proposal for the Master of Fine Arts Degree

Wing Chun: Introducing Basic Wing Chun Kung Fu Using Instructional Multimedia

by Lihan Huang

6.3 Game Design

Type
Platform , Beat 'em up

Charactors
1. fighter
2. citizens (who need your help)
3. foreign polices
4. General

Game Rules
The Wing Chun fighter has to focus on opponents' random gun attack or Karate attack (with pre-action for player to react), then dodging with attack. After knocking out all the opponents, the General who is the master of Karate will appear at the end of each stage.Players will learn new Wing Chun skills after passing a level. There will be 6 levels in the game. Players can learn how the different skills work easily by playing this game and gain more interest in Wing Chun.

Skills and Control
|	
Jump	space
Dodge	z
L1. Wing (basic)	x
L2. Lap	down + x
L3. Splitting	c
L4. Jerk	down + z
L5. Palm up	up + x
L6. Slap	down + c

Visual Setting
Characters: 3D
Background: 2.5D

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by Lihan Huang

Color:

Red 204 28 0

Yellow 255 173 0

Blue 0 152 161

Brown 133 117 82

Gray 95 95 97

Music

"A Man of Determination" remix by using Garageband

Sketch

Player Foreign Police General Citizens

dodge attack

Player (will be larger)

foreign polices

Coins Add Score

Chicken Add Live
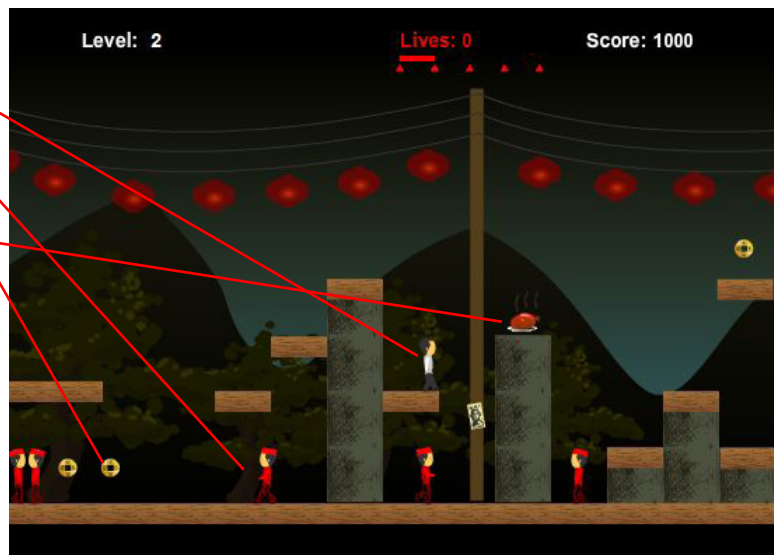
Level: 2   Lives: 0   Score: 1000

9. Budget

$360   Wing Chun Kung Fu class - 3 month
$ 60   Research expense for books
$ 10   .COM domain name registration - 2 Years
$ 90   Web hosting - 3 years

$520   Total

10. Timeline

Time	Item	Note
2009		
September	*Concept* *Survey of literature*	
October	*Thesis proposal draft*	*1st Committee Meeting*
November	*Thesis proposal defense* *Submit proposal* *Research* *Kung Fu learning*	
December	*Kung Fu learning* *3D modeling*	
2010		
January	*3D rigging & texturing* *Kung Fu learning* *Logo Design*	*2nd Committee Meeting*
February	*Website visual design* *Animation rendering*	
March	*Animation rendering* *UI / UX design*	
April	*User test* *UI / UX design*	*3rd Committee Meeting*
May	*UI / UX design* *Thesis defense* *Thesis show*	*4th Committee Meeting*
June	*Final work revise*	

6.2 Code Samples

HTML

‹ Responsive Homepage ›

```html
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
<head>
<link rel="shortcut icon" href="http://wk3d.com/favicon.ico"
type="image/x-icon" >
<meta http-equiv="Content-Type" content="text/html;
charset=iso-8859-1" />
<script type="text/javascript" src="swfIN.js"></script>
<title>Wing Chun Kung Fu 3D</title>
<style type="text/css">  body, html {margin:0; padding:0; height:100%}
</style>
</head>
<body>
<script type="text/javascript">
        var s = new swfIN("wk3dcom.swf", "title", "100%", "100%");
        s.scrollbarAt(720, 480);
        s.write();
</script>
<noscript>Javascript must be enabled to view this site</noscript>
</body>
</html>
```

ActionScript 3.0

‹ Loader, container and Resizehandler ›

```actionscript
import com.greensock.TweenLite;
stop();
var oHei:Number = 925;
var oWid:Number = 1440;
var loader:Loader =  new Loader();

function preSetup():void
{
        loader.contentLoaderInfo.addEventListener(Event.COMPLETE, afteloaded);
        loader.contentLoaderInfo.addEventListener(ProgressEvent.PROGRESS, trackProgress);
        addChildAt(loader, 0);
        loader.load(new URLRequest("wk3d_Dmenu18.swf"));
        // back_mc is the container
        back_mc.x = 0;
        back_mc.y = 0;
        back_mc.width = stage.stageWidth;
        back_mc.height = stage.stageHeight;
        loading_mc.x = stage.stageWidth-120;
        loading_mc.y = stage.stageHeight -60;
        stage.addEventListener(Event.RESIZE, resizeHandler);
        stage.align = StageAlign.TOP_LEFT;
        stage.scaleMode = StageScaleMode.NO_SCALE;
}
preSetup();

//when 100% loaded
function afteloaded(e:Event):void
{
        removeChild(loading_mc);
        TweenLite.to(back_mc, .7, {alpha:0, delay:.3, onComplete:removeBack});

        function removeBack():void
        {
                removeChild(back_mc);
        }
}

//trackProgress
function trackProgress(event:ProgressEvent):void
{
        var perLoaded:Number =
        Math.round(event.bytesLoaded / event.bytesTotal * 100);
        loading_mc.loadP.text = String(perLoaded);
}

//resizeHandler
function resizeHandler(e:Event):void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;
        back_mc.x = 0;
        back_mc.y = 0;
        back_mc.width = wid;
        back_mc.height = hei;
        loading_mc.x = stage.stageWidth-120;
        loading_mc.y = stage.stageHeight -60;
}
```

‹ Home Menus ›

```
import flash.events.MouseEvent;
import flash.events.Event;
import flash.display.*;
import com.greensock.TweenLite;
import com.greensock.easing.*;

stop();

var oHei:Number = 925;
var oWid:Number = 1440;
var mskSm:Number = 228;
var mskLg:Number = 320;
var speed:Number = 7;
var introCh:int = 1;

stage.align = StageAlign.TOP_LEFT;
stage.scaleMode = StageScaleMode.NO_SCALE;
stage.addEventListener(Event.RESIZE, resizeHandlerr);

//record the banner locations
var bTitleX:Number = 372;
var b1X = Number;
var b2X = Number;
var b3X = Number;
var b4X = Number;
var EndX = Number;

// four banners
b1.buttonMode = true;
b2.buttonMode = true;
b3.buttonMode = true;
b4.buttonMode = true;
b1.addEventListener(Event.ENTER_FRAME, fallowMenu);
b2.addEventListener(Event.ENTER_FRAME, fallow);
b3.addEventListener(Event.ENTER_FRAME, fallowBiii);
b4.addEventListener(Event.ENTER_FRAME, fallowBiv);
bEnd.addEventListener(Event.ENTER_FRAME, fallowBend);
b1.addEventListener(MouseEvent.MOUSE_OVER, longer);
b2.addEventListener(MouseEvent.MOUSE_OVER, longer);
b3.addEventListener(MouseEvent.MOUSE_OVER, longer);
b4.addEventListener(MouseEvent.MOUSE_OVER, longer);
b1.addEventListener(MouseEvent.MOUSE_OUT, back);
b2.addEventListener(MouseEvent.MOUSE_OUT, back);
b3.addEventListener(MouseEvent.MOUSE_OUT, back);
b4.addEventListener(MouseEvent.MOUSE_OUT, back);
// menus in the banners
menuIntro.addEventListener(MouseEvent.MOUSE_OVER, longeri);
menuIntro.addEventListener(MouseEvent.MOUSE_OUT, introOut);
menuForms.addEventListener(MouseEvent.MOUSE_OVER, longerii);
menuForms.addEventListener(MouseEvent.MOUSE_OUT, formsOut);
menuTrn.addEventListener(MouseEvent.MOUSE_OVER, longeriii);
menuTrn.addEventListener(MouseEvent.MOUSE_OUT, trnOut);
menuTerms.addEventListener(MouseEvent.MOUSE_OVER, longeriv);
menuTerms.addEventListener(MouseEvent.MOUSE_OUT, termsOut);
menuForms.fmI.addEventListener(MouseEvent.CLICK, goSil);
menuIntro.introI.addEventListener(MouseEvent.CLICK, goWhat);
menuIntro.introII.addEventListener(MouseEvent.CLICK, goPeople);
menuIntro.introIII.addEventListener(MouseEvent.CLICK, goHistory);
menuIntro.introIV.addEventListener(MouseEvent.CLICK, goPrinciples);
menuIntro.introV.addEventListener(MouseEvent.CLICK, goReferences);
menuIntro.buttonMode = true;
menuForms.buttonMode = true;
menuTrn.buttonMode = true;
menuTerms.buttonMode = true;
```

```
menuIntro.introI.alpha = 0;
menuIntro.introII.alpha = 0;
menuIntro.introIII.alpha = 0;
menuIntro.introIV.alpha = 0;
menuIntro.introV.alpha = 0;
menuForms.fmI.alpha = 0;
menuForms.fmII.alpha = 0;
menuForms.fmIII.alpha = 0;
menuTrn.trnI.alpha = 0;
menuTrn.trnII.alpha = 0;
menuTrn.trnIII.alpha = 0;
menuTrn.trnIV.alpha = 0;
menuTrn.trnV.alpha = 0;
menuTrn.trnVI.alpha = 0;

b1.msk.addEventListener(Event.ENTER_FRAME, mskOri);
b2.msk.addEventListener(Event.ENTER_FRAME, mskOri);
b3.msk.addEventListener(Event.ENTER_FRAME, mskOri);
b4.msk.addEventListener(Event.ENTER_FRAME, mskOri);

var twitLink:URLRequest = new URLRequest("http://twitter.com/LihanH");
endBtns.btnTwitter.addEventListener(MouseEvent.CLICK,twit);
endBtns.btnAbout.addEventListener(MouseEvent.CLICK,goAbout);
var emailLink:URLRequest = new URLRequest("mailto:taikerhan@gmail.com");
endBtns.btnContact.addEventListener(MouseEvent.CLICK, emailClick);

var ratio:Number = 1;
beginSize();
function beginSize():void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;
        logo_mc.x = wid - 15;
        logo_mc.y = hei - 12;
        title_mc.y = hei / 2 - 145;
        b1.y = 450 * hei / oHei;
        b2.y = 450 * hei / oHei;
        b3.y = 450 * hei / oHei;
        b4.y = 450 * hei / oHei;
        menuIntro.y = 478 * hei / oHei;
        menuForms.y = 478 * hei / oHei;
        menuTrn.y = 478 * hei / oHei;
        menuTerms.y = 478 * hei / oHei;
        if (wid < oWid)
        {
                if (wid <1150)
                {
                        bTitle.x = 220;
                        mskLg = 250;
                        title_mc.x = bTitle.x / 2 - 72;
                }
                else
                {
                        bTitle.x = wid / 2 - 348;
                        title_mc.x = bTitle.x / 2 - 72;
                }
        if (wid>900)
        {
                        mskSm = 240 * wid / oWid;
                        mskLg = 320 * wid / oWid;
                }
                else
                {
                        mskSm = 240 * 900 / oWid;
                        mskLg = 320 * 900 / oWid;
                }

        }
```

```
        if (wid >= oWid)
        {
                bTitle.x = wid / 2 - 348 * wid / oWid;
                title_mc.x = bTitle.x - 260;
                mskSm = 240;
                mskLg = 380;
        }

        if (hei<820 &&hei>650)
        {
                b1.scaleX = hei / 820;
                b1.scaleY = hei / 820;
                b2.scaleX = hei / 820;
                b2.scaleY = hei / 820;
                b3.scaleX = hei / 820;
                b3.scaleY = hei / 820;
                b4.scaleX = hei / 820;
                b4.scaleY = hei / 820;
                ratio = hei / 820;
        }
        else if (hei>950)
        {
                b1.scaleX = hei / oHei;
                b1.scaleY = hei / oHei;
                b2.scaleX = hei / oHei;
                b2.scaleY = hei / oHei;
                b3.scaleX = hei / oHei;
                b3.scaleY = hei / oHei;
                b4.scaleX = hei / oHei;
                b4.scaleY = hei / oHei;
                ratio = hei / oHei;
                bTitle.scaleX = hei / oHei;
                bTitle.scaleY = hei / oHei;
                bEnd.y = hei / 2;
                bEnd.scaleX = hei / oHei;
                bEnd.scaleY = hei / oHei;
        }
        else
        {
        }
        endBtns.x = title_mc.x;
        endBtns.y = hei - 20;
        bTitleX = bTitle.x;
}

function resizeHandlerr(e:Event):void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;

        logo_mc.x = wid - 15;
        logo_mc.y = hei - 12;
        title_mc.y = hei / 2 - 145;
        b1.y = 450 * hei / oHei;
        b2.y = 450 * hei / oHei;
        b3.y = 450 * hei / oHei;
        b4.y = 450 * hei / oHei;
        menuIntro.y = 478 * hei / oHei;
        menuForms.y = 478 * hei / oHei;
        menuTrn.y = 478 * hei / oHei;
        menuTerms.y = 478 * hei / oHei;
```

```
if (wid < oWid)
{
        if (wid <1150)
        {
                bTitle.x = 220;
                mskLg = 250;
                title_mc.x = bTitle.x / 2 - 72;
        }
        else
        {
                bTitle.x = wid / 2 - 348;
                title_mc.x = bTitle.x / 2 - 72;

        }
        if (wid>900)
        {
                mskSm = 240 * wid / oWid;
                mskLg = 320 * wid / oWid;
        }
        else
        {
                mskSm = 240 * 900 / oWid;
                mskLg = 320 * 900 / oWid;
        }

}
if (wid >= oWid)
{
        bTitle.x = wid / 2 - 348 * wid / oWid;
        title_mc.x = bTitle.x - 260;
        mskSm = 220;
        mskLg = 280;
}

if (hei<820 &&hei>650)
{
        b1.scaleX = hei / 820;
        b1.scaleY = hei / 820;
        b2.scaleX = hei / 820;
        b2.scaleY = hei / 820;
        b3.scaleX = hei / 820;
        b3.scaleY = hei / 820;
        b4.scaleX = hei / 820;
        b4.scaleY = hei / 820;
        ratio = hei / 820;
}
else if (hei>950)
{
        b1.scaleX = hei / (oHei+5);
        b1.scaleY = hei / (oHei+5);
        b2.scaleX = hei / (oHei+5);
        b2.scaleY = hei /   (oHei+5);
        b3.scaleX = hei / (oHei+5);
        b3.scaleY = hei /(oHei+5);
        b4.scaleX = hei /(oHei);
        b4.scaleY = hei / (oHei);
        ratio = hei / oHei;
        bTitle.scaleX = hei / oHei;
        bTitle.scaleY = hei / oHei;

        bEnd.y = hei / 2;
        bEnd.scaleX = hei / oHei;
        bEnd.scaleY = hei / oHei;
}
```

```
                else
                {
                }
                endBtns.x = title_mc.x;
                endBtns.y = hei - 20;
                bTitleX = bTitle.x;
        }
        //Btn functions
        function emailClick(event:MouseEvent):void
        {
                navigateToURL(emailLink);
        }

        function twit(event:MouseEvent):void
        {
                navigateToURL(twitLink);
        }

        function goAbout(e:MouseEvent):void
        {
                gotoAndPlay("about");
        }

        function goSil(e:MouseEvent):void
        {
                gotoAndStop("sil");


        }

        function goWhat(e:MouseEvent):void
        {
                introCh = 1;
                gotoAndStop("whatIs");
        }
        function goPeople(e:MouseEvent):void
        {
                introCh = 2;
                gotoAndStop("whatIs");
        }
        function goHistory(e:MouseEvent):void
        {
                introCh = 3;
                gotoAndStop("whatIs");
        }
        function goPrinciples(e:MouseEvent):void
        {
                introCh = 4;
                gotoAndStop("whatIs");
        }
        function goReferences(e:MouseEvent):void
        {
                introCh = 5;
                gotoAndStop("whatIs");
        }

        function longer(e:MouseEvent):void
        {
                e.target.msk.removeEventListener(Event.ENTER_FRAME, mskOri);
                e.target.msk.addEventListener(Event.ENTER_FRAME, mskScale);
                if (e.target == b1)
                {
                        TweenLite.to(menuIntro.introI, .5, {alpha:1, delay:.01});
                        TweenLite.to(menuIntro.introII, .5, {alpha:1, delay:.03});
                        TweenLite.to(menuIntro.introIII, .5, {alpha:1, delay:.05});
                        TweenLite.to(menuIntro.introIV, .5, {alpha:1, delay:.07});
                        TweenLite.to(menuIntro.introV, .5, {alpha:1, delay:.09});
                }
```

```
            if (e.target == b2)
            {
                    TweenLite.to(menuForms.fmI, .5, {alpha:1, delay:.01});
                    TweenLite.to(menuForms.fmII, .5, {alpha:1, delay:.05});
                    TweenLite.to(menuForms.fmIII, .5, {alpha:1, delay:.09});
            }
            if (e.target == b3)
            {
                    TweenLite.to(menuTrn.trnI, .5, {alpha:1, delay:.01});
                    TweenLite.to(menuTrn.trnII, .5, {alpha:1, delay:.04});
                    TweenLite.to(menuTrn.trnIII, .5, {alpha:1, delay:.07});
                    TweenLite.to(menuTrn.trnIV, .5, {alpha:1, delay:.1});
                    TweenLite.to(menuTrn.trnV, .5, {alpha:1, delay:.13});
                    TweenLite.to(menuTrn.trnVI, .5, {alpha:1, delay:.16});

            }
            else{}
    }

    //mouse out
    function introOut(e:MouseEvent):void
    {
            b1.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
            b1.msk.addEventListener(Event.ENTER_FRAME, mskOri);
    }

    function formsOut(e:MouseEvent):void
    {
            b2.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
            b2.msk.addEventListener(Event.ENTER_FRAME, mskOri);
    }

    function trnOut(e:MouseEvent):void
    {
            b3.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
            b3.msk.addEventListener(Event.ENTER_FRAME, mskOri);
    }

    function termsOut(e:MouseEvent):void
    {
            b4.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
            b4.msk.addEventListener(Event.ENTER_FRAME, mskOri);
    }

    //make the banners wider
    function longeri(e:MouseEvent):void
    {
            b1.msk.removeEventListener(Event.ENTER_FRAME, mskOri);
            b1.msk.addEventListener(Event.ENTER_FRAME, mskScale);
    }

    function longerii(e:MouseEvent):void
    {
            b2.msk.removeEventListener(Event.ENTER_FRAME, mskOri);
            b2.msk.addEventListener(Event.ENTER_FRAME, mskScale);
    }

    function longeriii(e:MouseEvent):void
    {
            b3.msk.removeEventListener(Event.ENTER_FRAME, mskOri);
            b3.msk.addEventListener(Event.ENTER_FRAME, mskScale);
    }

    function longeriv(e:MouseEvent):void
    {
            b4.msk.removeEventListener(Event.ENTER_FRAME, mskOri);
            b4.msk.addEventListener(Event.ENTER_FRAME, mskScale);
    }
```

```
function fallowMenu(e:Event):void
{
        if(stage.stageHeight <= 950)
        {
                b1.x = bTitle.x + b1.msk.width * ratio / 2 * ratio - 10 * stage.stageWidth /
1440;
                menuIntro.x = bTitle.x + b1.msk.width * ratio / 2 * ratio - 9* stage.
stageWidth / 1440-2 ;
        }
        else if (stage.stageHeight > 950)
        {
                b1.x = bTitle.x + b1.msk.width * ratio / 2 * ratio - 40* stage.stageWidth /
1440;
                menuIntro.x = bTitle.x + b1.msk.width * ratio / 2 * ratio - 9* stage.
stageWidth / 1440 - 25*stage.stageHeight/900;
        }

        b1X = b1.x;

}

function fallow(e:Event):void
{
        if (stage.stageWidth > 1440)
        {
                b2.x = b1.x + b1.msk.width * ratio / 2 + b2.msk.width * ratio / 2 - 10- 2*
stage.stageWidth / 1440;
        }
        else
        {
                b2.x = b1.x + b1.msk.width * ratio / 2 + b2.msk.width * ratio / 2 - 10;
        }


        menuForms.x = b1.x + b1.msk.width * ratio / 2 + b2.msk.width * ratio / 2;
        b2X = b2.x;
}

function fallowBiii(e:Event):void
{
        if (stage.stageWidth > 1440)
        {
                b3.x = b2.x + b2.msk.width * ratio / 2 + b3.msk.width * ratio / 2 - 10 - 2*
stage.stageWidth / 1440;
        }
        else
        {
                b3.x = b2.x + b2.msk.width * ratio / 2 + b3.msk.width * ratio / 2 - 10;
        }

        menuTrn.x = b2.x + b2.msk.width * ratio / 2 + b3.msk.width * ratio / 2;
        b3X = b3.x;
}

function fallowBiv(e:Event):void
{
        if (stage.stageWidth > 1440)
        {
                b4.x = b3.x + b3.msk.width * ratio / 2 + b4.msk.width * ratio / 2 - 10 - 2*
stage.stageWidth / 1440;
        }
        else
        {
                b4.x = b3.x + b3.msk.width * ratio / 2 + b4.msk.width * ratio / 2 - 10;
        }
```

```
        menuTerms.x = b3.x + b3.msk.width * ratio / 2 + b4.msk.width * ratio / 2;
        b4X = b4.x;
}

function fallowBend(e:Event):void
{
        bEnd.x = b4.x + b4.msk.width * ratio / 2 - 10;
        EndX = bEnd.x;
}

function back(e:MouseEvent):void
{
        e.target.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
        e.target.msk.addEventListener(Event.ENTER_FRAME, mskOri);

}

function mskScale(e:Event):void
{

        if (e.target.parent.msk.width < mskLg - 1)
        {
        e.target.parent.msk.width -= (e.target.parent.msk.width-mskLg)/speed;
        }
        else
        {
                e.target.parent.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
        }
}


function mskOri(e:Event):void
{
        e.target.parent.msk.width -= (e.target.parent.msk.width- mskSm)/speed;
        if (e.target.parent == b1)
        {
                TweenLite.to(menuIntro.introI, .25, {alpha:0});
                TweenLite.to(menuIntro.introII, .25, {alpha:0});
                TweenLite.to(menuIntro.introIII, .25, {alpha:0});
                TweenLite.to(menuIntro.introIV, .25, {alpha:0});
                TweenLite.to(menuIntro.introV, .25, {alpha:0});
        }
        if (e.target.parent == b2)
        {
                TweenLite.to(menuForms.fmI, .25, {alpha:0});
                TweenLite.to(menuForms.fmII, .25, {alpha:0});
                TweenLite.to(menuForms.fmIII, .25, {alpha:0});
        }
        if (e.target.parent == b3)
        {
                TweenLite.to(menuTrn.trnI, .25, {alpha:0});
                TweenLite.to(menuTrn.trnII, .25, {alpha:0});
                TweenLite.to(menuTrn.trnIII, .25, {alpha:0});
                TweenLite.to(menuTrn.trnIV, .25, {alpha:0});
                TweenLite.to(menuTrn.trnV, .25, {alpha:0});
                TweenLite.to(menuTrn.trnVI, .25, {alpha:0});
        }

}
```

‹ Lesson Setup ›

```
import flash.display.MovieClip;
import flash.events.Event;

stop();

//sil_menu.chapter_mc.alpha = 0;

var zen:MovieClip = new zenLoad();
var chapter01:Boolean = false;
var chapter02:Boolean = false;

var LoR:String = "L";    // Learning/Review mode switch

zen.x = stage.stageWidth-360;
zen.y = stage.stageHeight-200;

homeBtn.x = 40;
homeBtn.y = stage.stageHeight +50;
sil_menu.x = homeBtn.x + 50;
sil_menu.y = homeBtn.y;
sil_menu.silHelp_btn.x = stage.stageWidth-175;
if(stage.stageWidth>1250)
{
        sil_menu.silHelp_btn.x = stage.stageWidth - 200;
}
else{}

homeBtn.alpha=0;
sil_menu.alpha=0;
menuIntro.introI.alpha = 0;
menuIntro.introII.alpha = 0;
menuIntro.introIII.alpha = 0;
menuIntro.introIV.alpha = 0;
menuIntro.introV.alpha = 0;
menuForms.fmI.alpha = 0;
menuForms.fmII.alpha = 0;
menuForms.fmIII.alpha = 0;
menuTrn.trnI.alpha = 0;
menuTrn.trnII.alpha = 0;
menuTrn.trnIII.alpha = 0;
menuTrn.trnIV.alpha = 0;
menuTrn.trnV.alpha = 0;
menuTrn.trnVI.alpha = 0;
//sil_menu
sil_menu.dis_btn.buttonMode = true;
sil_menu.step_btn.buttonMode = true;      //step=learning
sil_menu.rv_btn.buttonMode = true;
sil_menu.silHelp_btn.buttonMode = true;
sil_menu.chapter_mc.c01_btn.buttonMode = true;
sil_menu.chapter_mc.c02_btn.buttonMode = true;
sil_menu.dis_btn.gotoAndStop("now");
sil_menu.step_btn.addEventListener(MouseEvent.MOUSE_OVER, overBtn);
sil_menu.step_btn.addEventListener(MouseEvent.MOUSE_OUT, outBtn);
sil_menu.step_btn.addEventListener(MouseEvent.CLICK, clickLearn);
sil_menu.rv_btn.addEventListener(MouseEvent.MOUSE_OVER, overBtn);
sil_menu.rv_btn.addEventListener(MouseEvent.MOUSE_OUT, outBtn);
sil_menu.rv_btn.addEventListener(MouseEvent.CLICK, clickRv);
sil_menu.chapter_mc.c01_btn.addEventListener(MouseEvent.CLICK, clickSil01);
sil_menu.chapter_mc.c01_btn.addEventListener(MouseEvent.MOUSE_OVER, overBtn);
sil_menu.chapter_mc.c01_btn.addEventListener(MouseEvent.MOUSE_OUT, outBtn);
sil_menu.chapter_mc.c02_btn.addEventListener(MouseEvent.CLICK, clickSil02);
sil_menu.chapter_mc.c02_btn.addEventListener(MouseEvent.MOUSE_OVER, overBtn);
sil_menu.chapter_mc.c02_btn.addEventListener(MouseEvent.MOUSE_OUT, outBtn);
```

```
function overBtn(e:MouseEvent):void
{
        e.target.gotoAndStop("on");
}

function outBtn(e:MouseEvent):void
{
        //e.target.gotoAndStop("out");
        if(e.target == sil_menu.chapter_mc.c01_btn && chapter01 == true)
        {
                e.target.gotoAndStop("read");
        }
        else if(e.target == sil_menu.chapter_mc.c02_btn && chapter02 == true)
        {
                e.target.gotoAndStop("read");
        }
        else
        {
                e.target.gotoAndStop("out");
        }
}

function clickDis(e:MouseEvent):void
{
        gotoAndPlay("sil_dis");
}

function clickLearn(e:MouseEvent):void
{
        if(currentLabel == "sil_R02")
        {
                this.gotoAndStop("sil_L02");
        }
        else
        {
                this.gotoAndStop("sil_L01");
                sil_menu.chapter_mc.c01_btn.gotoAndStop("on");
        }
        sil_menu.step_btn.gotoAndStop("click");    //flash Learn button
}

function clickRv(e:MouseEvent):void
{
        if(currentLabel == "sil_L02")
        {
                this.gotoAndStop("sil_R02");
        }
        else
        {
         this.gotoAndStop("sil_R01");
         sil_menu.chapter_mc.c01_btn.gotoAndStop("on");
        }
        sil_menu.rv_btn.gotoAndStop("click");
}

function goSil_L_1():void  //called form swf
{
        this.gotoAndStop("sil_L01");
        sil_menu.chapter_mc.c01_btn.gotoAndStop("click");
        sil_menu.step_btn.gotoAndStop("click");
}
function goSil_R_1():void  //called form swf
{
        this.gotoAndStop("sil_R01");
        sil_menu.chapter_mc.c01_btn.gotoAndStop("click");
        sil_menu.rv_btn.gotoAndStop("click");
}
```

```
function clickSil01(e:MouseEvent):void
{
        if(LoR == "L")
        {
                this.gotoAndStop("sil_L01");
        }
        else
        {
                this.gotoAndStop("sil_R01");
        }
        sil_menu.chapter_mc.c01_btn.gotoAndStop("click");
}

function clickSil02(e:MouseEvent):void
{
        if(LoR == "L")
        {
                this.gotoAndStop("sil_L02");
        }
        else
        {
                this.gotoAndStop("sil_R02");
        }
        sil_menu.chapter_mc.c02_btn.gotoAndStop("click");
}

stage.addEventListener(Event.RESIZE, resizeSil);

function resizeSil(e:Event):void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;

        homeBtn.x = 50;
        homeBtn.y = hei - 10;
        sil_menu.x = homeBtn.x + 50;
        sil_menu.y = hei - 10;
        endBtns.y = hei + 20;
        bTitle.x = -10;
        bEnd.x = wid + 10;
        if(wid>1250)
        {
        sil_menu.silHelp_btn.x = wid-200;
        }

        if(help)
        {
                help.x= wid/2;
                help.y = hei/2;
                help.helpBack_mc.width = wid;
                help.helpBack_mc.height = hei;
        }
}

menuIntro.introI.removeEventListener(MouseEvent.CLICK, goWhat);
menuIntro.introII.removeEventListener(MouseEvent.CLICK, goPeople);
menuIntro.introIII.removeEventListener(MouseEvent.CLICK, goHistory);
menuIntro.introIV.removeEventListener(MouseEvent.CLICK, goPrinciples);
menuIntro.introV.removeEventListener(MouseEvent.CLICK, goReferences)
menuForms.fmI.removeEventListener(MouseEvent.CLICK, goSil);
b1.removeEventListener(Event.ENTER_FRAME, fallowMenu);
b2.removeEventListener(Event.ENTER_FRAME, fallow);
b3.removeEventListener(Event.ENTER_FRAME, fallowBiii);
b4.removeEventListener(Event.ENTER_FRAME, fallowBiv);
bEnd.removeEventListener(Event.ENTER_FRAME, fallowBend);
```

```
b1.removeEventListener(MouseEvent.MOUSE_OVER, longer);
b2.removeEventListener(MouseEvent.MOUSE_OVER, longer);
b3.removeEventListener(MouseEvent.MOUSE_OVER, longer);
b4.removeEventListener(MouseEvent.MOUSE_OVER, longer);
b1.removeEventListener(MouseEvent.MOUSE_OUT, back);
b2.removeEventListener(MouseEvent.MOUSE_OUT, back);
b3.removeEventListener(MouseEvent.MOUSE_OUT, back);
b4.removeEventListener(MouseEvent.MOUSE_OUT, back);
menuIntro.removeEventListener(MouseEvent.MOUSE_OVER, longeri);
menuIntro.removeEventListener(MouseEvent.MOUSE_OUT, introOut);
menuForms.removeEventListener(MouseEvent.MOUSE_OVER, longerii);
menuForms.removeEventListener(MouseEvent.MOUSE_OUT, formsOut);
menuTrn.removeEventListener(MouseEvent.MOUSE_OVER, longeriii);
menuTrn.removeEventListener(MouseEvent.MOUSE_OUT, trnOut);
menuTerms.removeEventListener(MouseEvent.MOUSE_OVER, longeriv);
menuTerms.removeEventListener(MouseEvent.MOUSE_OUT, termsOut);
b1.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
b2.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
b3.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
b4.msk.removeEventListener(Event.ENTER_FRAME, mskScale);
TweenLite.to(title_mc, .5, {alpha:0});
TweenLite.to(menuIntro, .5, {alpha:0});
TweenLite.to(menuForms, .5, {alpha:0});
TweenLite.to(menuTrn, .5, {alpha:0});
TweenLite.to(menuTerms, .5, {alpha:0});
TweenLite.to(endBtns, .5, {y: stage.stageHeight+25, alpha:0, ease:Circ.easeIn});
TweenLite.to(logo_mc, .5, {alpha:0});
TweenLite.to(bTitle, 1, {x:stage.stageWidth/2, ease:Quad.easeInOut});
TweenLite.to(b1, 1, {x:stage.stageWidth/2-125*stage.stageWidth/1440, ease:Quad.easeInOut});
TweenLite.to(b2, 1, {x:stage.stageWidth/2-125*stage.stageWidth/1440, delay:0.05, ease:Quad.
easeInOut});
TweenLite.to(b3, 1, {x:stage.stageWidth/2-125*stage.stageWidth/1440, delay:.05, ease:Quad.
easeInOut});
TweenLite.to(b4, 1, {x:stage.stageWidth/2-125*stage.stageWidth/1440, delay:.07, ease:Quad.
easeInOut});
TweenLite.to(bEnd, 1, {x:stage.stageWidth/2, ease:Quad.easeInOut, onComplete:loadSil});
zen.alpha = 0;
addChild(zen);
TweenLite.to(zen, .2, {alpha:1, delay:1.2});
var sLoader:Loader =  new Loader();

function loadSil():void
{
        sLoader.contentLoaderInfo.addEventListener(Event.COMPLETE, sLoadered);
        sLoader.contentLoaderInfo.addEventListener(ProgressEvent.PROGRESS, trackProgress);
        sLoader.load(new URLRequest("sil_dis01.swf"));
        //sLoader.load(new URLRequest("lm002_6CS5-2.swf"));
}
function sLoadered(e:Event):void
        {
                TweenLite.to(zen, .3, {alpha:0, delay:0.1, onComplete:removeZen})
                addChildAt(sLoader, 8);
                TweenLite.to(homeBtn, .5, {y: stage.stageHeight-10, alpha:1, delay:.9,
ease:Circ.easeOut});
                TweenLite.to(sil_menu, .5, {y: stage.stageHeight-10, alpha:1, delay:.9,
ease:Circ.easeOut});
                TweenLite.to(bTitle, 1, {x:-10, delay:.2, ease:Quad.easeInOut});
                TweenLite.to(bEnd, 1, {x:stage.stageWidth+10, delay:.2, ease:Quad.easeInOut,
onComplete:alphaDoor});
                sLoader.contentLoaderInfo.removeEventListener(ProgressEvent.PROGRESS,
trackProgress);
                sLoader.contentLoaderInfo.removeEventListener(Event.COMPLETE, sLoadered);
                function removeZen():void
                {
                        removeChild(zen);
                }
        }
```

```
//trackProgress
function trackProgress(event:ProgressEvent):void
{
        var perLoaded:Number = Math.round(event.bytesLoaded / event.bytesTotal * 100);
        zen.loadNum.text = String(perLoaded);
}
function alphaDoor():void
{
        bTitle.alpha = 0;
        bEnd.alpha = 0;
}
homeBtn.addEventListener(MouseEvent.CLICK, goHome);
function goHome(e:MouseEvent):void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;

        if (wid < oWid)
        {
                if(wid <1150)
                {
                        bTitle.x = 220;
                }
                else
                {
                        bTitle.x = wid/2 - 348 ;
                }
        }
        if (wid >= oWid)
        {
                bTitle.x = wid/2 - 348*wid/oWid ;
        }
        homeBtn.removeEventListener(MouseEvent.CLICK, goHome);
        stage.removeEventListener(Event.RESIZE, resizeSil);

        homeBtn.alpha=0;
        TweenLite.to(homeBtn, .5, {y: stage.stageHeight+50, alpha:0, ease:Circ.easeIn});
        TweenLite.to(sil_menu, .5, {y: stage.stageHeight+50, alpha:0, ease:Circ.easeIn,
onComplete:goWait});
        function goWait():void
        {
        gotoAndStop("wait");
        closeDoor();
        }
}
function closeDoor():void
{
        bTitle.alpha = 1;
        bEnd.alpha = 1;
        bTitle.x = -10;
        bEnd.x = stage.stageWidth +10;
        TweenLite.to(bTitle, 1.5, {x:stage.stageWidth/2, ease:Quad.easeInOut});
        TweenLite.to(bEnd, 1.5, {x:stage.stageWidth/2, ease:Quad.easeInOut, onComplete:reOpen});
}
function reOpen():void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;
        TweenLite.to(bTitle, 1, {x:bTitleX, delay:.3, ease:Quad.easeInOut});
        TweenLite.to(b1, 1, {x:b1X, delay:.2, ease:Quad.easeInOut});
        TweenLite.to(b2, 1, {x:b2X, delay:.2, ease:Quad.easeInOut});
        TweenLite.to(b3, 1, {x:b3X, delay:.2, ease:Quad.easeInOut});
        TweenLite.to(b4, 1, {x:b4X, delay:.2, ease:Quad.easeInOut});
        TweenLite.to(bEnd, 1, {x:EndX, delay:.3, ease:Quad.easeInOut, onComplete: reEvent});
        TweenLite.to(title_mc, 1, {alpha:1, delay:.7});
unSwf();
}
```

```
function unSwf():void
{
        sLoader.unloadAndStop();
        removeChild(sLoader);
}

function reEvent():void
{
        TweenLite.to(menuIntro, .5, {alpha:1, delay:.2});
        TweenLite.to(menuForms, .5,{alpha:1, delay:.2});
        TweenLite.to(menuTrn, .5, {alpha:1, delay:.2});
        TweenLite.to(menuTerms, .5, {alpha:1, delay:.2});
        TweenLite.to(endBtns, .5, {alpha:1, delay:.1});
        TweenLite.to(endBtns, .5, {y: stage.stageHeight-20, alpha:1, ease:Circ.easeOut});
        TweenLite.to(logo_mc, .5,{alpha:1, delay:.1});
        b1.msk.addEventListener(Event.ENTER_FRAME, mskOri);
        b2.msk.addEventListener(Event.ENTER_FRAME, mskOri);
        b3.msk.addEventListener(Event.ENTER_FRAME, mskOri);
        b4.msk.addEventListener(Event.ENTER_FRAME, mskOri);
        b1.addEventListener(Event.ENTER_FRAME, fallowMenu);
        b2.addEventListener(Event.ENTER_FRAME, fallow);
        b3.addEventListener(Event.ENTER_FRAME, fallowBiii);
        b4.addEventListener(Event.ENTER_FRAME, fallowBiv);
        bEnd.addEventListener(Event.ENTER_FRAME, fallowBend);
        b1.addEventListener(MouseEvent.MOUSE_OVER, longer);
        b2.addEventListener(MouseEvent.MOUSE_OVER, longer);
        b3.addEventListener(MouseEvent.MOUSE_OVER, longer);
        b4.addEventListener(MouseEvent.MOUSE_OVER, longer);
        b1.addEventListener(MouseEvent.MOUSE_OUT, back);
        b2.addEventListener(MouseEvent.MOUSE_OUT, back);
        b3.addEventListener(MouseEvent.MOUSE_OUT, back);
        b4.addEventListener(MouseEvent.MOUSE_OUT, back);
        menuIntro.addEventListener(MouseEvent.MOUSE_OVER, longeri);
        menuIntro.addEventListener(MouseEvent.MOUSE_OUT, introOut);
        menuForms.addEventListener(MouseEvent.MOUSE_OVER, longerii);
        menuForms.addEventListener(MouseEvent.MOUSE_OUT, formsOut);
        menuTrn.addEventListener(MouseEvent.MOUSE_OVER, longeriii);
        menuTrn.addEventListener(MouseEvent.MOUSE_OUT, trnOut);
        menuTerms.addEventListener(MouseEvent.MOUSE_OVER, longeriv);
        menuTerms.addEventListener(MouseEvent.MOUSE_OUT, termsOut);


        menuIntro.introI.addEventListener(MouseEvent.CLICK, goWhat);
        menuIntro.introII.addEventListener(MouseEvent.CLICK, goPeople);
        menuIntro.introIII.addEventListener(MouseEvent.CLICK, goHistory);
        menuIntro.introIV.addEventListener(MouseEvent.CLICK, goPrinciples);
        menuIntro.introV.addEventListener(MouseEvent.CLICK, goReferences)
        menuForms.fmI.addEventListener(MouseEvent.CLICK, goSil);
}

var help:MovieClip = new help_content();
help.help_sil01.stop();
help.helpCC_btn.buttonMode = true;
sil_menu.silHelp_btn.addEventListener(MouseEvent.MOUSE_OVER, overBtn);
sil_menu.silHelp_btn.addEventListener(MouseEvent.MOUSE_OUT, outBtn);
sil_menu.silHelp_btn.addEventListener(MouseEvent.CLICK, goSilHelp);

function goSilHelp(e:MouseEvent):void
{
        help.x = stage.stageWidth/2;
        help.y = stage.stageHeight/2;
        help.helpBack_mc.width = stage.stageWidth;
        help.helpBack_mc.height = stage.stageHeight;
        help.x= stage.stageWidth/2;
        help.y = stage.stageHeight/2;
        addChild(help);
```

```
        help.help_sil01.gotoAndPlay(1);
        help.helpCC_btn.gotoAndStop("out");
        help.helpCC_btn.addEventListener(MouseEvent.CLICK, closeSilHelp);
        help.helpCC_btn.addEventListener(MouseEvent.MOUSE_OUT, outBtn);
        help.helpCC_btn.addEventListener(MouseEvent.MOUSE_OVER, overBtn);
        help.helpBack_mc.addEventListener(MouseEvent.CLICK, closeSilHelp);
        help.helpNext_btn.addEventListener(MouseEvent.CLICK, clickNextSection);
        help.helpPre_btn.addEventListener(MouseEvent.CLICK, clickPreSection);
}

function closeSilHelp(e:MouseEvent):void
{
        help.helpCC_btn.gotoAndStop("click");
        help.helpCC_btn.removeEventListener(MouseEvent.CLICK, closeSilHelp);
        help.helpCC_btn.removeEventListener(MouseEvent.MOUSE_OUT, outBtn);
        help.helpCC_btn.removeEventListener(MouseEvent.MOUSE_OVER, overBtn);
        help.helpBack_mc.removeEventListener(MouseEvent.CLICK, closeSilHelp);
        help.helpNext_btn.removeEventListener(MouseEvent.CLICK, clickNextSection);
        help.helpPre_btn.removeEventListener(MouseEvent.CLICK, clickPreSection);
        removeChild(help);
        help.gotoAndStop("helpAa");

}

function clickPreSection(e:MouseEvent):void
{
        if (help.currentLabel == "helpAa")
        {
                help.gotoAndStop("helpE");
        }
        else if(help.currentLabel == "helpB")
        {
                help.gotoAndStop("helpAa");
        }
        else if(help.currentLabel == "helpC")
        {
                help.gotoAndStop("helpB");
        }
        else if(help.currentLabel == "helpD")
        {
                help.gotoAndStop("helpC");
        }
        else if(help.currentLabel == "helpE")
        {
                help.gotoAndStop("helpD");
        }
        else{}
}
```

‹ Lesson Page Container Setup ›

```
stop();
chapter01 = true;
LoR = "L";

zen.alpha = 0;
addChild(zen);
TweenLite.to(zen, .2, {alpha:1, delay:1.2});
bTitle.alpha =1;
bEnd.alpha = 1;
TweenLite.to(bTitle, 1, {x:stage.stageWidth/2 , ease:Quad.easeInOut});
TweenLite.to(bEnd, 1, {x:stage.stageWidth/2, ease:Quad.easeInOut, onComplete:loadSil_L1});

function loadSil_L1():void
{
        sLoader.unloadAndStop();

        sLoader.contentLoaderInfo.addEventListener(Event.COMPLETE, sLoadered);
        sLoader.contentLoaderInfo.addEventListener(ProgressEvent.PROGRESS, trackProgress);
        sLoader.load(new URLRequest("learnCH01.swf"));
        sil_menu.step_btn.gotoAndStop("now");
        sil_menu.chapter_mc.c01_btn.gotoAndStop("now");

        sLoader.contentLoaderInfo.addEventListener(Event.COMPLETE, showInfo);
}

function showInfo(e:Event):void
{
        sLoader.contentLoaderInfo.removeEventListener(Event.COMPLETE, showInfo);
}

sil_menu.dis_btn.addEventListener(MouseEvent.MOUSE_OUT, outBtn);
sil_menu.dis_btn.addEventListener(MouseEvent.CLICK, clickDis);
sil_menu.dis_btn.addEventListener(MouseEvent.MOUSE_OVER, overBtn);

sil_menu.step_btn.removeEventListener(MouseEvent.MOUSE_OVER, overBtn);
sil_menu.step_btn.removeEventListener(MouseEvent.MOUSE_OUT, outBtn);
sil_menu.step_btn.removeEventListener(MouseEvent.CLICK, clickLearn);

sil_menu.rv_btn.addEventListener(MouseEvent.CLICK, clickRv);
sil_menu.rv_btn.addEventListener(MouseEvent.MOUSE_OVER, overBtn);
sil_menu.rv_btn.addEventListener(MouseEvent.MOUSE_OUT, outBtn);

sil_menu.chapter_mc.c01_btn.removeEventListener(MouseEvent.CLICK, clickSil01);
sil_menu.chapter_mc.c01_btn.removeEventListener(MouseEvent.MOUSE_OVER, overBtn);
sil_menu.chapter_mc.c01_btn.removeEventListener(MouseEvent.MOUSE_OUT, outBtn);

sil_menu.chapter_mc.c02_btn.addEventListener(MouseEvent.CLICK, clickSil02);
sil_menu.chapter_mc.c02_btn.addEventListener(MouseEvent.MOUSE_OVER, overBtn);
sil_menu.chapter_mc.c02_btn.addEventListener(MouseEvent.MOUSE_OUT, outBtn);
Btn);

if(chapter02 == true)
{
        sil_menu.chapter_mc.c02_btn.gotoAndStop("read");
}
else
{
        sil_menu.chapter_mc.c02_btn.gotoAndStop("out");
}

sil_menu.dis_btn.gotoAndStop("out");
sil_menu.rv_btn.gotoAndStop("out");
```

```
import com.greensock.TweenLite;
import com.greensock.easing.*;
var oHei:Number = 925;
var oWid:Number = 1440;
org.visible = false;
var ratio:Number = book_mc.width / book_mc.height;
firstSize(book_mc);

stage.addEventListener(Event.RESIZE, resizeHandlerBook);

var _thisDownStartX:Number;
var _thisDownStartY:Number;
var sFrames:int = 2;
var frames:int = 19;
var fMark:Array = [];
fMark[0] = [2,19];
fMark[1] = [62,72];
fMark[2] = [110,120];
fMark[3] = [131,145];
fMark[4] = [180,200];

var dragging:Boolean = false;
var destination:Point=new Point();
var speed:Number = 5;
var offset:Point=new Point();
var xpf:Number = 4;//define the distance would play a frame
var ypf:Number = 8;

book_mc.addEventListener(Event.ENTER_FRAME, reListen);

function reListen(e:Event):void
{
        if(  book_mc.currentFrame == fMark[1][0]
           ||book_mc.currentFrame == fMark[2][0]
           ||book_mc.currentFrame == fMark[3][0]
           ||book_mc.currentFrame == fMark[4][0]
           ||book_mc.currentFrame == fMark[0][0])
        {
                this.addEventListener(MouseEvent.MOUSE_DOWN, thisDown);
                org.addEventListener(Event.ENTER_FRAME,followMouse);
        }
        {}
}

function thisDown(e:MouseEvent)
{
        dragging = true;
        stage.addEventListener(MouseEvent.MOUSE_UP, thisUp);
        stage.removeEventListener(MouseEvent.MOUSE_DOWN, thisDown);
        _thisDownStartX = mouseX;// mouse click start point
        _thisDownStartY = mouseY;
        offset.x = org.mouseX;// mouse location in the object
        offset.y = org.mouseY;
}

function thisUp(e:MouseEvent):void
{
        dragging = false;
        stage.removeEventListener(MouseEvent.MOUSE_UP, thisUp);
        stage.addEventListener(MouseEvent.MOUSE_DOWN, thisDown);
```

```
        // #01 raise hand completed
        if(book_mc.currentFrame == fMark[0][1])
        {
                stage.removeEventListener(MouseEvent.MOUSE_DOWN, thisDown);
                org.removeEventListener(Event.ENTER_FRAME,followMouse);
                zero();    //reset vars
                book_mc.play();
                sFrames = fMark[1][0];
                frames= fMark[1][1];
        }

        // #02 bend knee completed
        if(book_mc.currentFrame == fMark[1][1])
        {
                stage.removeEventListener(MouseEvent.MOUSE_DOWN, thisDown);
                org.removeEventListener(Event.ENTER_FRAME,followMouse);
                zero();    //reset vars
                book_mc.play();
                sFrames = fMark[2][0];
                frames= fMark[2][1];
                xpf = 10;
        }

        // #03 toes out completed
        if(book_mc.currentFrame == fMark[2][1])
        {
                stage.removeEventListener(MouseEvent.MOUSE_DOWN, thisDown);
                org.removeEventListener(Event.ENTER_FRAME,followMouse);
                zero();    //reset vars
                book_mc.play();
                sFrames = fMark[3][0];
                frames= fMark[3][1];
                xpf = 12;
        }

        // #04 heels out completed
                if(book_mc.currentFrame == fMark[3][1])
        {
                stage.removeEventListener(MouseEvent.MOUSE_DOWN, thisDown);
                org.removeEventListener(Event.ENTER_FRAME,followMouse);
                zero();    //reset vars
                book_mc.play();
                sFrames = fMark[4][0];
                frames= fMark[4][1];
                xpf = 1;
        }

        // #05 hip out completed
        if(book_mc.currentFrame == fMark[4][1])     ///loop
        {
                stage.removeEventListener(MouseEvent.MOUSE_DOWN, thisDown);
                org.removeEventListener(Event.ENTER_FRAME,followMouse);
                zero();    //reset vars
                book_mc.play();
                sFrames = fMark[0][0];
                frames= fMark[0][1];
                xpf = 4;
        }
}
function followMouse(e:Event):void
{
        if (dragging)
        {
                destination.x = mouseX;
                destination.y = mouseY;
        }
```

```
org.x-=(org.x-(destination.x-offset.x))/speed;
org.y-=(org.y-(destination.y-offset.y))/speed;

if(book_mc.currentFrame >= fMark[0][0] && book_mc.currentFrame <= fMark[0][1])
{
        if (org.y >= 0)
        {
                org.y = 0;
        }
        if (org.y <=  -(frames-sFrames) * ypf)
        {
        org.y = -(frames-sFrames) * ypf;
        }
        var targetFrame:Number = Math.round(org.y / ypf);
        book_mc.gotoAndStop(-targetFrame + sFrames);
}
else if(book_mc.currentFrame >= fMark[1][0] && book_mc.currentFrame <= fMark[1][1])
{
        if (org.x >= 0)
        {
                org.x = 0;
        }
        if (org.x <=  -(frames-sFrames) * xpf)
        {
                org.x = -(frames-sFrames) * xpf;

        }
        targetFrame = Math.round(org.x / xpf);
        book_mc.gotoAndStop(-targetFrame + sFrames);
}
else if(book_mc.currentFrame >= fMark[2][0] && book_mc.currentFrame <= fMark[2][1])
{
        if (org.x <= 0)
        {
                org.x = 0;
        }
        if (org.x >=  (frames-sFrames) * xpf)
        {
                org.x = (frames-sFrames) * xpf;

        }
        targetFrame = Math.round(org.x / xpf);
        book_mc.gotoAndStop(targetFrame + sFrames);
}

else if(book_mc.currentFrame>= fMark[3][0] && book_mc.currentFrame <= fMark[3][1])
{
        if (org.x <= 0)
        {
                org.x = 0;
        }
        if (org.x >=  (frames-sFrames) * xpf)
        {
                org.x = (frames-sFrames) * xpf;

        }
        targetFrame = Math.round(org.x / xpf);
        book_mc.gotoAndStop(targetFrame + sFrames);
}
else if(book_mc.currentFrame>= fMark[4][0] && book_mc.currentFrame <= fMark[4][1])
{
        if (org.x >= 0)
        {
                org.x = 0;
        }
        if (org.x <=  -(frames-sFrames) * xpf)
```

```
                {
                        org.x = -(frames-sFrames) * xpf;


                }
                targetFrame = Math.round(org.x / xpf);
                book_mc.gotoAndStop(-targetFrame + sFrames);
        }
}


function zero():void
{
                org.x = 0;
                org.y = 0;
                destination.x = 0;
                destination.y = 0;
                offset.x = 0;
                offset.y = 0;
}


function resizeHandlerBook(e:Event):void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;

        if (wid > 1445 || hei > 930)
        {
                if (wid / hei > 1.57)
                {
                        book_mc.width = wid;
                        book_mc.height = wid / ratio;
                }
                else
                {
                        book_mc.height = hei;
                        book_mc.width = hei * ratio;
                }
        }
        book_mc.x = wid / 2;
        book_mc.y = hei / 2;
}


function firstSize(mc:MovieClip):void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;
        var ratio:Number = mc.width / mc.height;
        if (stage.stageWidth > 1440 || stage.stageHeight > 930)
        {
                if (stage.stageWidth / stage.stageHeight > 1.57)
                {
                        mc.width = stage.stageWidth;
                        mc.height = stage.stageWidth / ratio;
                }
                else
                {
                        mc.height = stage.stageHeight;
                        mc.width = stage.stageHeight * ratio;
                }
        }
        mc.x = stage.stageWidth / 2;
        mc.y = stage.stageHeight / 2;
}
```

```
var oHei:Number = 925;
var oWid:Number = 1440;
org.visible = false;
var ratio:Number = book_mc.width / book_mc.height;
firstSize(book_mc);
stage.addEventListener(Event.RESIZE, resizeHandlerBook); //resizebook
var _thisDownStartX:Number;
var _thisDownStartY:Number;
var frames:int = 130;
var dragging:Boolean = false;
var sp:MovieClip = new startPoint();
var mt:MovieClip = new mouseTarget();
var line:MovieClip = new MovieClip();
var destination:Point=new Point();
var speed:Number = 10;
var offset:Point=new Point();
org.alpha = 0;
dir_mc.buttonMode = true;
stage.addEventListener(MouseEvent.MOUSE_DOWN, thisDown);
org.addEventListener(Event.ENTER_FRAME,followMouse);
dir_mc.addEventListener(Event.ENTER_FRAME, changeDir);
function changeDir(e:Event):void
{
        if (book_mc.currentFrame == 1)
        {
                dir_mc.gotoAndPlay(1);
        }
        else if (book_mc.currentFrame == frames)
        {
                dir_mc.gotoAndPlay("left");
        }
        else
        {
                dir_mc.gotoAndPlay("no");
        }
}
function thisDown(e:MouseEvent)
{
        dragging = true;
        Mouse.hide();
        stage.addEventListener(MouseEvent.MOUSE_UP, thisUp);
        stage.removeEventListener(MouseEvent.MOUSE_DOWN, thisDown);
        _thisDownStartX = mouseX;// mouse click start point
        _thisDownStartY = mouseY;
        offset.x = org.mouseX;// mouse location in the object
        stage.addEventListener(MouseEvent.MOUSE_MOVE, makeLine);

        sp.x = _thisDownStartX;
        sp.y = _thisDownStartY;
        addChild(sp);
        sp.visible = true;
        sp.play();
}
function thisUp(e:MouseEvent):void
{
        dragging = false;
        Mouse.show();
        stage.removeEventListener(MouseEvent.MOUSE_UP, thisUp);
        stage.removeEventListener(MouseEvent.MOUSE_MOVE, makeLine);
        stage.addEventListener(MouseEvent.MOUSE_DOWN, thisDown);
        line.visible = false;//hide lines
        sp.visible = false;
        mt.visible = false;
}
```

```
function makeLine(e:MouseEvent):void
{
        //show arrow
        mt.x = mouseX;
        mt.y = sp.y;
        addChild(mt);
        mt.visible = true;
        var distance:Number = _thisDownStartX - mouseX;
        if (distance < -1)
        {
                mt.scaleX = 1;
        }
        else if (distance > 1)
        {
                mt.scaleX = -1;
        }
        else
        {
                mt.scaleX = 1;
        }
        //show line
        line.graphics.clear();
        line.graphics.lineStyle(1, 0x40B2F2, 1);
        line.graphics.moveTo(sp.x, sp.y);
        line.graphics.lineTo(mt.x, mt.y);
        addChild(line);
        line.visible = true;
}

function followMouse(e:Event):void
{
        if (dragging)
        {
                destination.x = mouseX;
        }
        org.x-=(org.x-(destination.x-offset.x))/speed;

        var xpf:Number = 2;//define the distance would play a frame
        if (org.x <= 0)
        {
                org.x = 0;
        }
        if (org.x >= frames * xpf)
        {
                org.x = frames * xpf;
        }

        var targetFrame:Number = Math.round(org.x / xpf);
        book_mc.gotoAndStop(targetFrame);
}
function resizeHandlerBook(e:Event):void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;

        if (wid > 1445 || hei > 930)
        {
                if (wid / hei > 1.57)
                {
                        book_mc.width = wid;
                        book_mc.height = wid / ratio;
                }
                else
                {
                        book_mc.height = hei;
                        book_mc.width = hei * ratio;
                }
```

```
        }
        book_mc.x = wid / 2;
        book_mc.y = hei / 2;
        dir_mc.x = wid / 2;
        dir_mc.y = hei / 2 -30;
}

function firstSize(mc:MovieClip):void
{
        var wid:Number = stage.stageWidth;
        var hei:Number = stage.stageHeight;
        var ratio:Number = mc.width / mc.height;
        if (stage.stageWidth > 1445 || stage.stageHeight > 930)
        {
                if (stage.stageWidth / stage.stageHeight > 1.57)
                {
                        mc.width = stage.stageWidth;
                        mc.height = stage.stageWidth / ratio;
                }
                else
                {
                        mc.height = stage.stageHeight;
                        mc.width = stage.stageHeight * ratio;
                }
        }
        mc.x = stage.stageWidth / 2;
        mc.y = stage.stageHeight / 2;
        dir_mc.x = wid / 2;
        dir_mc.y = hei / 2-30;
}
```

‹ The Intro Section ›

```
stop();
var tF:Number = 0;  //target frame
var eF:Number = 0;   //currentFrame
var goF:Number = 0;
var oHei:Number = 925;
var mouse_x:Number;
timeline.addEventListener(Event.ENTER_FRAME, rotateWhat);

function rotateWhat(e:Event):void
{
       if(timeline.currentFrame < 70)
       {
       mouse_x = mouseX;
       timeline.what_mc.gotoAndStop(int( 10 * mouse_x / stage.stageWidth));
       }
}

function handleMouseWheel(event:MouseEvent):void {
       if ((event.delta < 0 && timeline.currentFrame < timeline.totalFrames) || (event.
delta > 0 && timeline.currentFrame > 0))
       {
               tF= timeline.currentFrame - event.delta*3;
       }
}
timeline.addEventListener(MouseEvent.MOUSE_WHEEL, handleMouseWheel);
timeline.addEventListener(Event.ENTER_FRAME, goWhere);

function goWhere(e:Event):void
{
       eF= timeline.currentFrame;
       goF = (eF -= (timeline.currentFrame - tF)/5);
       timeline.gotoAndStop( Math.round(goF) );
}

introHome_btn.addEventListener(MouseEvent.CLICK, loadWhatIs);
what_btn.addEventListener(MouseEvent.CLICK, goWhat);
people_btn.addEventListener(MouseEvent.CLICK, goPeople);
history_btn.addEventListener(MouseEvent.CLICK, goHistory);
principle_btn.addEventListener(MouseEvent.CLICK, goPrinciple);
reference_btn.addEventListener(MouseEvent.CLICK, goReference);

function loadWhatIs(e: MouseEvent):void
{
       timeline.removeEventListener(Event.ENTER_FRAME, rotateWhat);
       introHome_btn.removeEventListener(MouseEvent.CLICK, loadWhatIs);
       what_btn.removeEventListener(MouseEvent.CLICK, goWhat);
       people_btn.removeEventListener(MouseEvent.CLICK, goPeople);
       history_btn.removeEventListener(MouseEvent.CLICK, goHistory);
       principle_btn.removeEventListener(MouseEvent.CLICK, goPrinciple);
       MovieClip(parent.parent).introGoHome();
}

function goWhat(e:MouseEvent):void
{tF = 1;}
function goPeople(e:MouseEvent):void
{tF = 98;}
function goHistory(e:MouseEvent):void
{tF = 194;}
function goPrinciple(e:MouseEvent):void
{tF = 294;}
function goReference(e:MouseEvent):void
{tF = 465;}
```

7 | Bibliography

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