Shanghai Museum & Cleveland Museum of Arts

A SHARED EXPERIENCE

PROJECT REPORT

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Experience Design:
Interactions and Environments

Professor:
Prof. Kaja Tooming Buchanan

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COLLEGE OF DESIGN
AND INNOVATION
同济大学设计创意学院

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Experience Design: Interactions and Environments
Course Code: 2270033

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Image 1

EXECUTIVE SUMMARY

This project report focuses on the challenge of building a bridge to have a shared and unified experience between two world-known museums; Shanghai Museum and Cleveland Museum of Art and providing suggestion how to do it. Its purpose is to facilitate simultaneous experiences for their visitors, in both locations.

In the start of the project phenomenological observations were done, and analyzed in a form of an issue map to highlight areas of issues where experiences can be improved. Observations were all conducted to observe different interactions, such as people to people (observing facial engagement and body language), people to interface and people to environment interaction in Shanghai Museum. The aim for these observations was to gain important information about how to design conditions for a memorable experience.

Central idea of this project was Dui Lian, which is a Chinese couplet. Dui Lian was analyzed in order to find the main elements to focus on during the development of the project. These elements are shared experience, knowledge and awareness.

Shared experience, knowledge and awareness were emphasized in approach for approving areas of issues and making more engaging experience for the visitor.

Image 2

ORGANIZATION PROFILE

1. PURPOSE AND SPECIALIZATION

The Shanghai Museum is a museum of ancient Chinese art, located in People's Square in the Huangpu District of Shanghai, China. Shanghai Museum was founded in 1952 and been open for the public on its current location in People's Square since 1996. Its style and presentation surround visitors with artifacts demonstrating ancient wisdom and philosophy. The museum has more than 140,000 precious historical relics, it has ten galleries and three special temporary exhibition halls; spread over four floors offer an artistic historical tour of the Middle Kingdom dating from as far back as 20 centuries B.CE.. The permanent galleries cover most of the major categories of Chinese art: Ancient Bronze, Ancient Ceramics, Paintings, Calligraphy, Ancient Sculpture, Ancient Jade, Coins, Ming and Qing Furniture, Seals, and Minority Nationalities.

2. HISTORY

The Shanghai Museum was founded in 1952 and originally located at the old Shanghai Race Club in Nanjing Road. In 1959 it was relocated in South Henan Road in the Zhonghui Building. Finally in 1992, the Shanghai Municipal Government decided to allocate People Square as the new site of Shanghai Museum.

The construction of the premises of the Shanghai Museum started in 1993 and was completed and opened to the public in 1996, covering a total area of 39.200 m2 with a height of 29.5m.

Shanghai museum constantly evolving organization both in the ideology and practice. This year, they have started to use WeChat communication platform to engage people to learn more about the museum. They also interact with visitors in a way of having many activities like, lecture and students' holiday activities. To have more room for the large collection of Chinese art and culture, future plans on second museum location in Pudong have already been set.

3. MARKETING POSITION

Shanghai museum is free for the public to visit. It attracts 1.95 million to 2million visitors on average per year from all over the world. Among the whole number of visitors, 20% are international visitors, 5-10% are students. SH. Museum provides a booking service for the tour group which have to book one week in advance.

For now, the commercial form of Shanghai Museum is divided into the following two main business models. One is a variety of souvenirs, both in the development and sales. Another is the Tea Room which provides food and

Image 3

beverage to the visitors.

Souvenirs are one of the highlight projects which have long term studies and research by Shanghai museum in in the last 60 years. There are 2-3 souvenir shops on every floor, and also an online shop at the website. It also has three offline shops in shopping malls and duty free shop.

Comparing with other competitors museums, the strength of SH. Museum are the products (both souvenirs and leisure space & accommodation service) which are always related to the traditional Chinese culture and tested by long time sailing, and of course the quality of the artifacts exhibited. The weakness is limited in broadcasting and innovation.

The market niche of SH. Museum will use an innovative method to interpret Chinese unique culture and history in the exhibition, and services provided.

and can be considered as a good way to interact with visitors.

This museum is located in a great metropolis, Shanghai, which has a prosperous economy and fascinating culture. At the moment, the Shanghai Museum is aiming at becoming a world level museum in its sector, which is ancient chinese art and culture. Looking forward to the future, a new idea of museum is developing an new locations spread around the city will be organized. All this is representative of the willing of the museum to create a more interactive and shared experience with the user.

4. CURRENT POSITION

Shanghai museum is keeping pace with times, both in the ideology and practice. This year, they have just open the WeChat communication platform to engage people to learn more about museum. Also they hold many activities, like special exhibition, lecture, students ' holiday activities. These activities are meaningful

ISSUES AND PROBLEM

Focus of this project was to create shared unified experience with Shanghai Museum and Cleveland Museum of Art. To reach that goal phenomenological observation were made in Shanghai Museum. Even though purpose was to create shared experience in both of the museums, focus was more on Shanghai Museum, because Cleveland Museum of Art were too far away to visit in regards of this project. Issue map was done based on phenomenological observations from Shanghai Museum. All the conclusions were drawn based on the issues that were observed in the museum.

Focus on the observations were on interaction, more specifically on people to people interaction (observing facial engagement and body language), people to interface, people to environment and people to artifacts interaction. This lead to the individuation of the three main areas of issues, which were: lack in the way-finding system, limited level of engagement and limited accessibility to information. This led for developing problem statement that synthesis of areas of issues.

Shanghai Museum does not enable visitors to fulfill an aesthetic, practical and intellectual experience as a whole in the moments before, during and after the visit. This is due to a lack of way-finding system inside and outside the museum and a limited engagement towards visitors of all ages. This lack of interaction between artifacts and visitors leads to a passive experience.
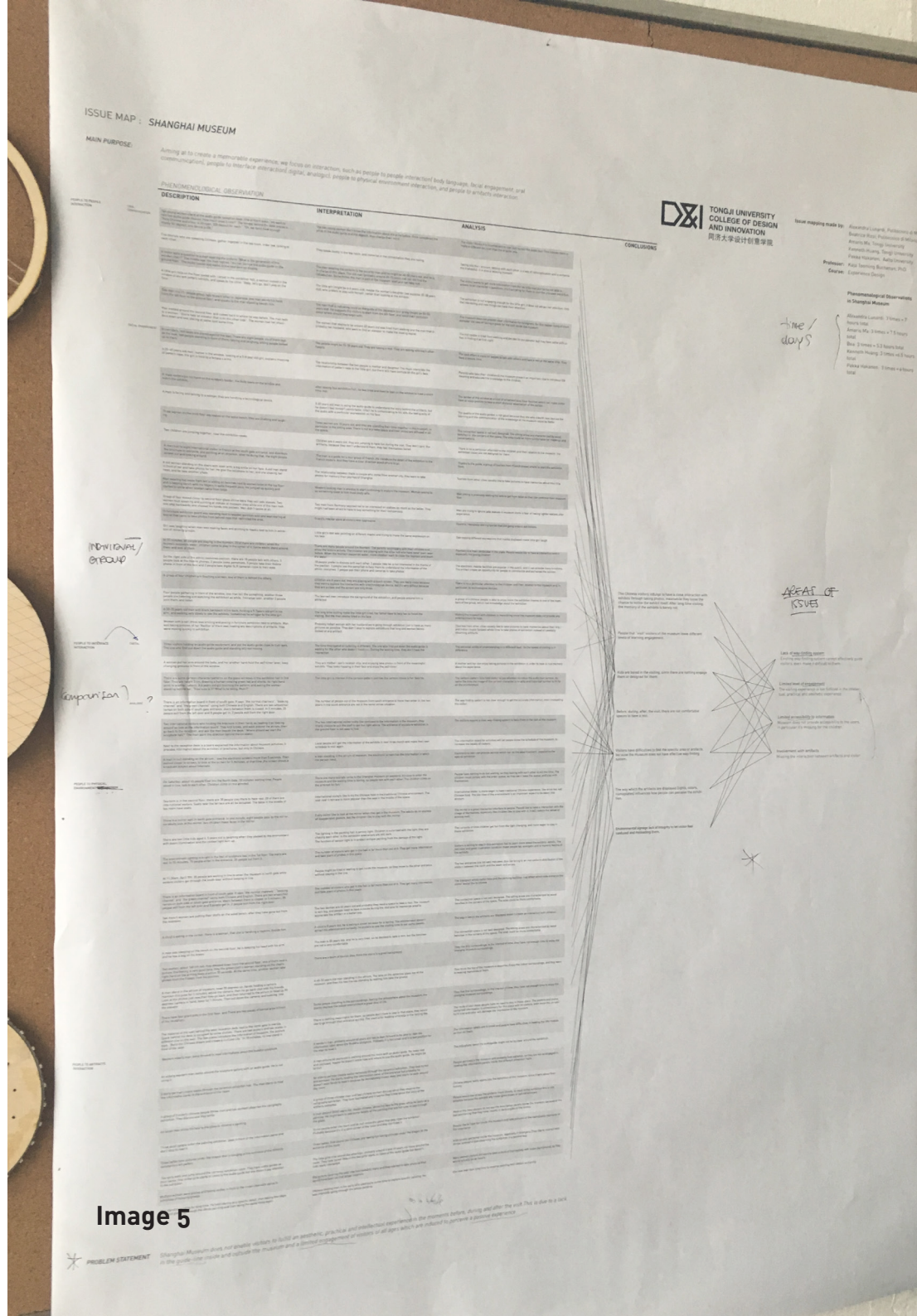

Image 5

The Chinese visitors indulge to have a close interaction with exhibits through taking photos, meanwhile they loose the chance to notice the exhibit itself. After long time visiting, the memory of the exhibits is barely not.

People that "visit" visitors of the museum leave different levels of learning engagement.

Kids are bored in the visiting, since there are nothing engage them or designed for them.

Before, during, after, the visit, there are not comfortable spaces to have a rest.

Visitors have difficulties to find the specific area or artifacts, because the museum does not have effective way-finding system.

The way which the artifacts are displayed (lights, colors, nameplates) influences how people can perceive the exhibition.

Environmental signage lack of integrity to let visitor feel confused and misleading them.

ISSUES
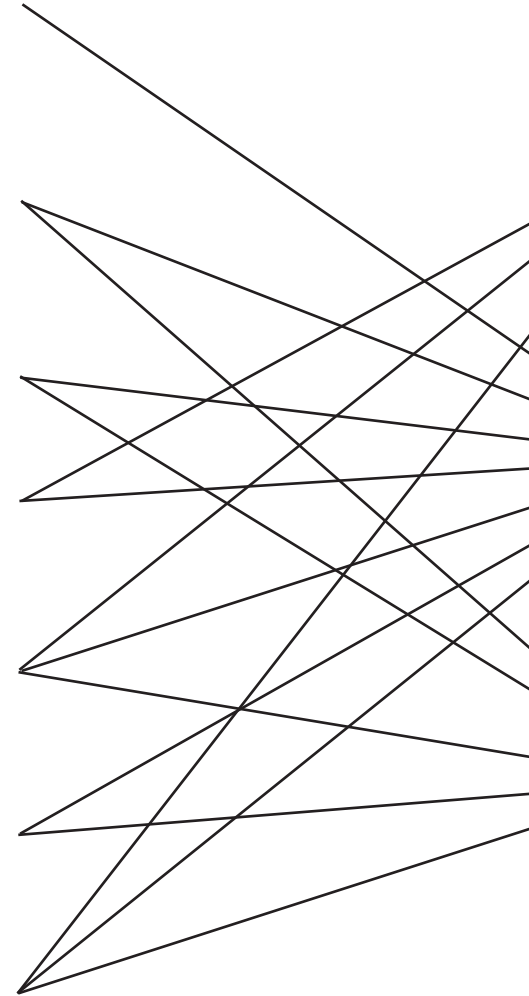
LACK OF WAY-FINDING SYSTEM

Existing way-finding system cannot effectively guide visitors, even make it difficult to them.

LIMITED LEVEL OF ENGAGEMENT

The visiting experience is not fulfilled in the intellectual, practical and aesthetic experience as a whole. The interaction between artifacts and visitor is missing.

LIMITED ACCESSIBILITY TO INFORMATION

Museum does not provide accessibility to the users, in particular it's missing for the children.

Shanghai Museum does not enable visitors to fulfill an aesthetic, practical and intellectual experience as a whole in the moments before, during and after the visit. This is due to a lack of way-finding system inside and outside the museum and a limited engagement towards visitors of all ages. This lack of interaction between artifacts and visitors leads to a passive experience.

AREAS OF ISSUES

PROBLEM STATEMENT

DUI LIAN

Our central idea was chosen to be Dui Lian. Dui Lian is a traditional Chinese poem that is in the form of a couplet. In Dui Lian there is pair of words or phrases that are focusing on the same topic but have slightly different aspect or emphasis. Dui Lian is a thoughtful way to show cultural differences between Shanghai Museum and Cleveland Museum of Arts and to include it to create shared experience.

Dui Lian that was chosen is: "读古人书 , 友天下士 " which can be translated into:

"Read the books written by the ancients,
Befriend the scholars under the sky. "

In this the first part of the the couplet it is reflecting Shanghai Museum while the ladder part is reflecting Cleveland Museum of Arts.

Couplet's profound meaning will open better when characters are being interpret more deeply. The first line of the couplet is about the culture, artifacts, interpretation, transmission of knowledge, history, story-telling, wise person, precious, material and sharing. The second line of the couplet means learning, knowledge, sharing, lecture, oral communication, information, interpretation, wise person, doctrine, school system, method.

In the couplet keywords 书 (book) and its pair 士(scholars) were exhausted to find words that are related to them. In this process Richard Buchanan's The Four Orders of Design –method was used to explore different aspects for example how book is related to activities, services, processes and experiences. Time era was also taken into consideration, because for example scholars in ancient time had different stand in a surrounding society than now in modern time.

In traditional Chinese culture, every DUI LIAN has its own title, which can extract the whole meaning itself. We use this way and choose another two Chinese characters"享 知" (means feelings, enjoy, shared, useful, contribute, logic and awareness) to create the shared experience between museum and visitors, and establish contact between Shanghai Museum and Cleveland Museum of Arts.

读古人书 , 友天下士

"Read the books written by the ancients,
Befriend the scholars under the sky. "

BEFRIEND   READ

友天下士   讀古人書

UNIVERSAL   ANCIENT
                                                     PEOPLE

SCHOLARS   BOOK

Learning
Knowledge
Sharing
Lecture
Oral Communication
Information
Interpretation
Wise person
Doctrine
School System
Method

享 知

xiǎng   zhī

Feelings   Knowledge
Enjoy   LOGIC
SHARED   AWARENESS
Useful
Contribute

Culture
Artifacts
Interpretation
Transmission of knowledge
History
Storytelling
Wise person
Precious
Material
Sharing

Ancient Time ———● *Modern Time*

Sharing knowledge   Accessible knowledge
(oral comm. & books)   (less sharing)
Teacher as a Master   Develop your own thinking
(knowledge related to
his view of life)

Ancient Time ———● *Modern Time*

Collective   Individual
Oral / Written   Digital / Written

Image 6

Image 7

CONCEPT DEVELOPMENT

To accomplish deeper level of engagement with visitors of all age's technology was used to **facilitate multisensorial experiences**. Visitors will register and great museum profile in the interaction screen in museum atrium. After that they will receive remote that is shaped like traditional **Chinese brush**. With the brush visitors are interacting with games and screens in museum. Brush will also work as storage for saving favorite artifacts, pictures, melodies etc. **Interactive wall and screen** were designed for atrium. Purpose of this is to engage visitors straight away when they enter into the building. Also right now atrium of Shanghai Museum has no benches for visitors to rest or features that would capture attention. One of the goal was to change that place more captivating. Atrium of Cleveland Museum of Art has been called "A living room of the city". By including displays interactive wall where visitors can see museum experiences from both museums purpose was to create "A living room of the world". Not only showing heart of the city through history but also opening window to world by showing visitors from Cleveland and their museum experiences.

In registration user takes picture of themselves, fills their name, age, nationality and topics they want to explore in Shanghai Museum. After registration user receives an interactive remote that is in the shape of traditional Chinese brush.

This interactive brush works as a selection tool and enables user play different **interactive games** inside exhibitions. Data from the visit and all the information that has been saved are stored in the brush. The brush can be used to save collection of favorite artifacts for further exploration on interactive tables. Every technological devices is needed to be so simple that also the senior visitors can use it without trouble. Also when discussing about way to interact with exhibitions and artifacts, use of tablets was decided to left out. If visitors are given a tablet to take pictures and interact a lot of interaction would always be made through tablet. The idea of the brush was that visitors can still view the artifacts with their own two eyes. Also having brush in a hand would most probably reduce massive use of phone in the exhibitions making groups of people interact more with the exhibition.

It is important to **engage users** better from the moment they step into museum. Therefore in an atrium there is interactive screen for possibility to register profile for more whole experience.
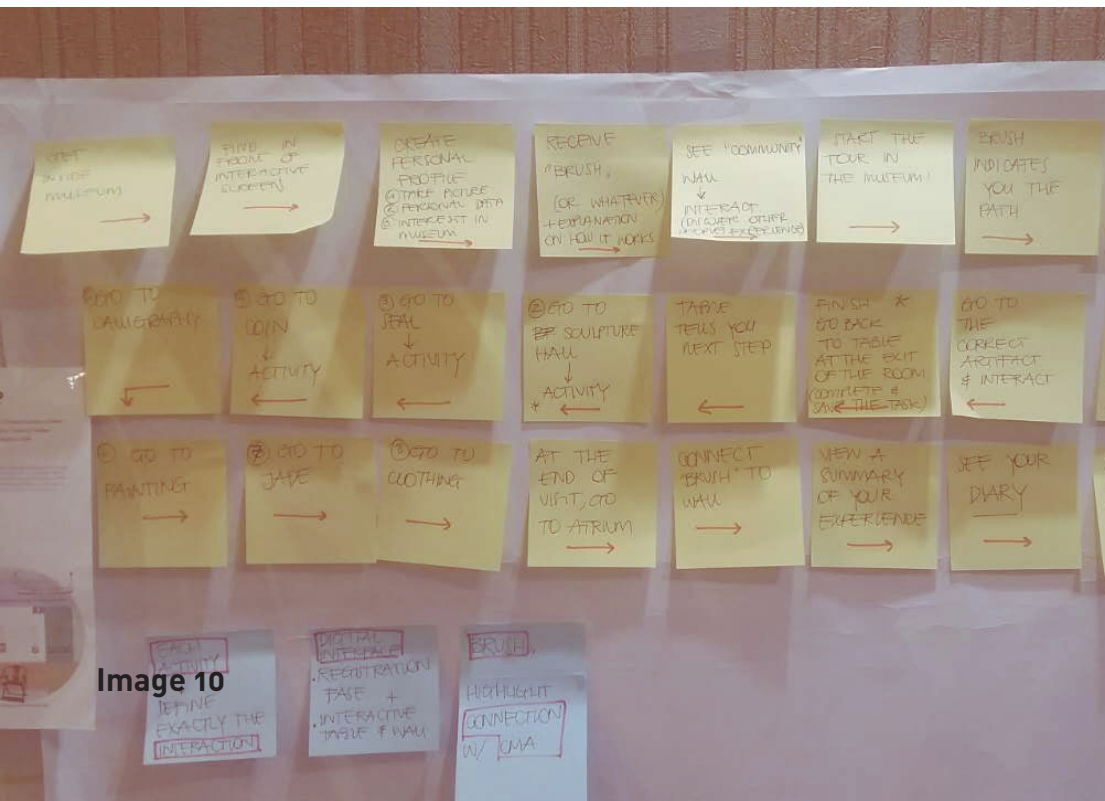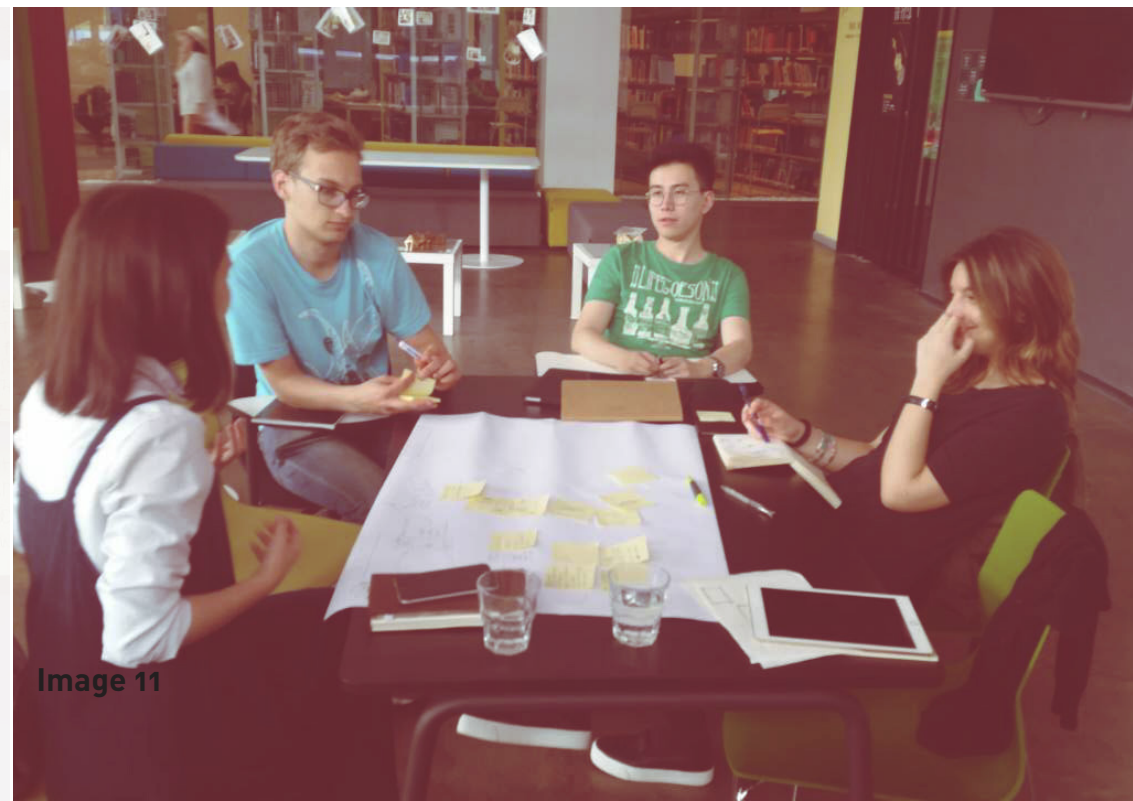
Image 8

Image 9

Image 10

Image 11

USERS PROFILES

PRIMARY:
NON PROFESSIONALS

Gender: Male
Age: 35-45
Work hours: 50 hrs/wk at work or home
Education: Bachelors degree
Location: Berlin, Germany
Activity: Stand in front of the exhibits, using mobile phone
Family: Married, 1 kid at high school
Interview time: 10:12

Gender: Female
Age: + 60
Work hours: 50 hrs/wk at work or home
Education: High School
Location: Shanghai, China
Activity: Walking through the Security Check
Family: Married, 3 Kids, Two of them in Education System & One of them in Bank System
Interview time: 11:25

Gender: Male
Age: 6-10
Work hours: 35 hrs/wk at school
Education: Primary School
Location: Jin Hua, ZheJiang Provience, China
Activity: Running on the aisle
Family: An only child, Father-Business man, Mother-public institution
Interview time: 9:50

SECONDARY:
PROFESSIONALS

Gender: Female
Age: 35-50
Work hours: 30hrs/wk at work
Education: Master Degree
Location: Shanghai, China
Activity: Coin pavilion
Family: Married, No kids, History teacher.
Interview time: 10:30

Gender: Male
Age: 50-65
Work hours: 50hrs/wk at work
Education: PhD
Location: Tokyo, Japan
Activity: Pen & Paper Records to see the exhibits.
Family: 2 Kids, in China & Japan
Interview time: 11:03

INTERACTIVE ELEMENTS

Idea was to create **interactive element** for example games on every exhibition. One of the challenges was to engage kids that are yet not able to read fluently. How to enable them to discover artifacts in deeper way than before. By involving kids into multi-sensorial experiences through games they are more engaged and learn more. Also these interactive elements are to help understand entities for example what artifacts are from the same time era.

In exhibition on **Minority Nationalities** clothing visitor can try out **Digital Glass interactive screen**. In the screen visitors can see how ancient clothing will look them. Digital Glass will scan body shape of a visitors to create 3D model. Then Visitors can look how they would have been dressed on that era. When model is created it is easy to rotate model to see profiles also from side and back. After trying out clothes visitors can save good quality pictures of themselves with those clothes.
On that exhibition visitor can also learn about techniques how dress patterns were produced in ancient dresses and practice them in a game. The pattern can be chosen from the clothes they have selected and saved. Visitor can also access library database of Cleveland Museum of Art. System will recommend clothes from same era and visitors can also try on clothes they see on famous paintings from that database.
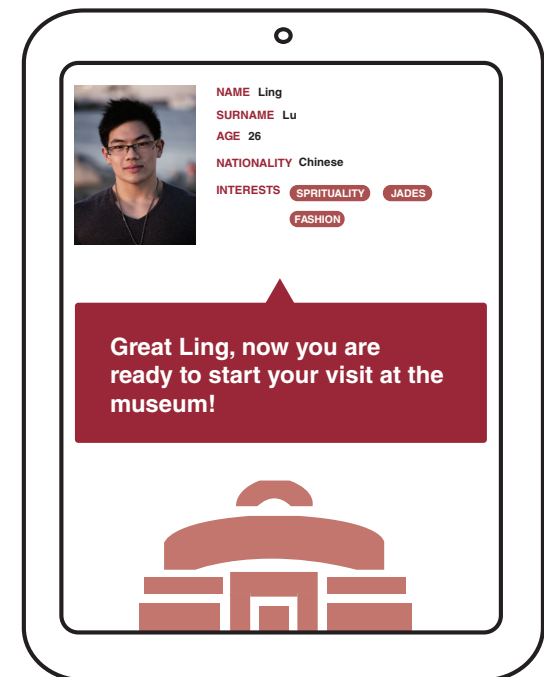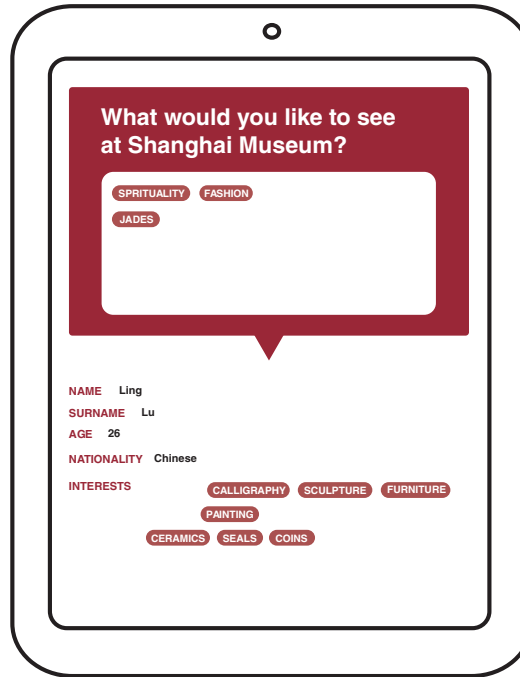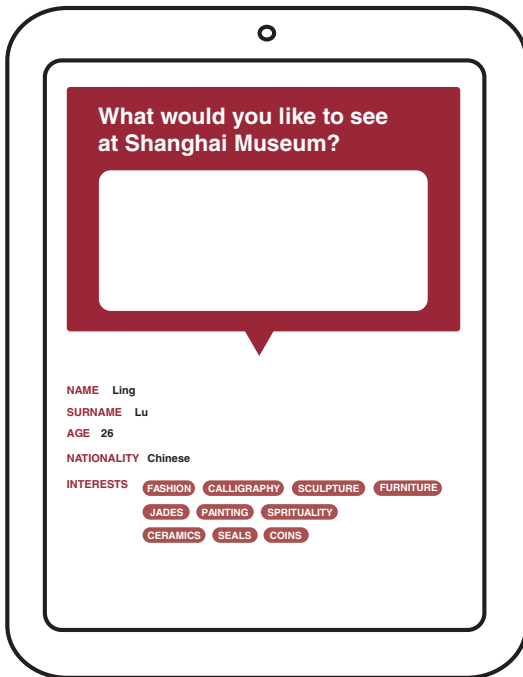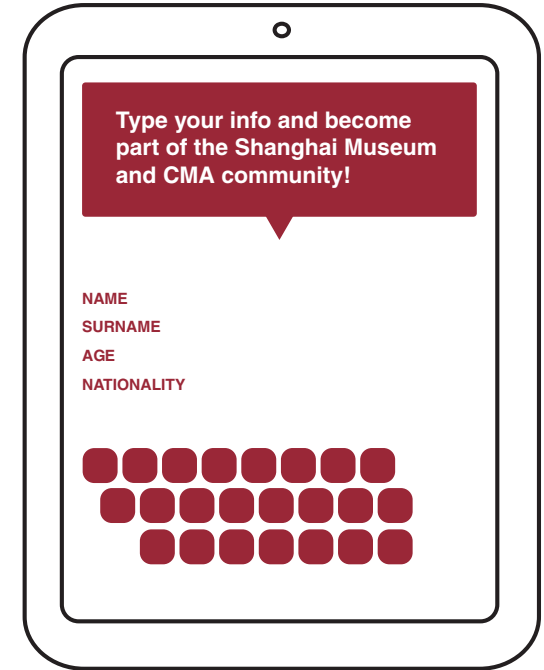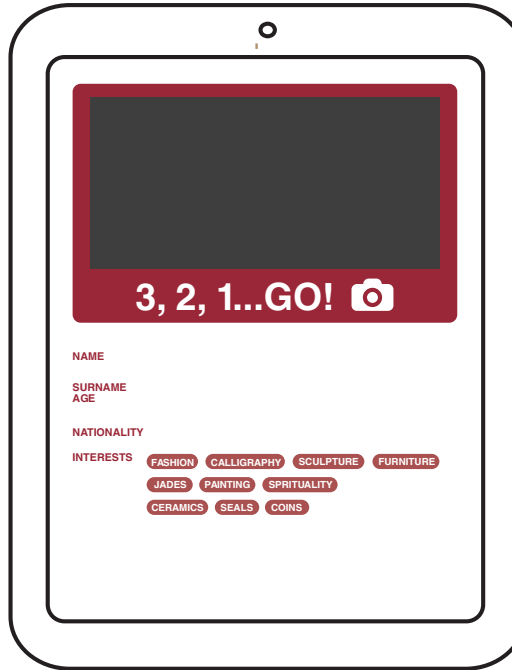
In **Bronze Exhibition** there are ancient **chime bells** that one can play with a brush. Bells will make a sound when visitor is close to bells that visitor can start playing the Chime-bells. When visitor waves brush onwards certain bell it will play. Sensors in brush and above bells will recognize from the pointing direction which is the bell to produce sound on each motion.
After playing the bells visitor can save that **melody** and take it home as a memory. Visitor can go to interactive table to play again melody that they composed. They can also compose new melodies on the interactive table.

In **Calligraphy Exhibition** visitor can practice and simulate different style of calligraphies written by the most famous master calligrapher. After writing calligraphy with the brush visitor can save it into his collections. Through this visitor will gain knowledge over culture and history by exploring calligraphy.
Chinese visitor can also type the Chinese character in pinyin, to find the characters made by different master piece or in a different dynasty. International visitor can write word in English and system will translate it into Chinese, and show the corresponding ancient character
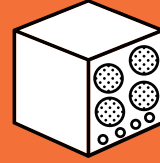On **Jade Exhibition** visitors needs to find and collect certain jades to craft traditional jade necklace. Visitors need to look for right color, type and shape of jade gems, save them to brush and construct necklace at the interaction screen.

Interface of the registration panel the users find once they get inside the Shanghai Museum

3, 2, 1...GO! 📷

NAME

SURNAME
AGE

NATIONALITY

INTERESTS   FASHION   CALLIGRAPHY   SCULPTURE   FURNITURE
JADES   PAINTING   SPRITUALITY
CERAMICS   SEALS   COINS

Type your info and become part of the Shanghai Museum and CMA community!

NAME
SURNAME
AGE
NATIONALITY

What would you like to see at Shanghai Museum?

NAME   Ling
SURNAME   Lu
AGE   26
NATIONALITY   Chinese
INTERESTS   FASHION   CALLIGRAPHY   SCULPTURE   FURNITURE
JADES   PAINTING   SPRITUALITY
CERAMICS   SEALS   COINS

What would you like to see at Shanghai Museum?

SPRITUALITY   FASHION
JADES

NAME   Ling
SURNAME   Lu
AGE   26
NATIONALITY   Chinese
INTERESTS   CALLIGRAPHY   SCULPTURE   FURNITURE
PAINTING
CERAMICS   SEALS   COINS

NAME   Ling
SURNAME   Lu
AGE   26
NATIONALITY   Chinese
INTERESTS   SPRITUALITY   JADES
FASHION

Great Ling, now you are ready to start your visit at the museum!

THE BRONZE
GALLERY

INDUCTOR

CHIME-BELLS
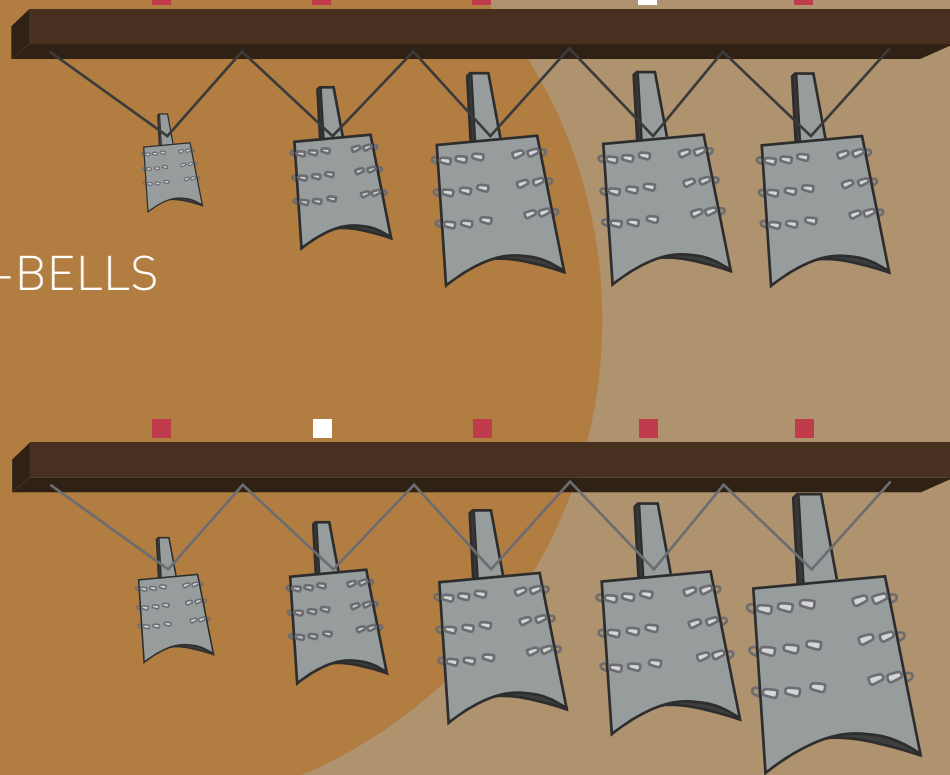
ATTENTION

When the visitor is holding the digital brush close to the bell installation, the inductor will get the signal to the brush and make sound to capture the visitor's attention.

CHIME-BELLS

PLAY &
COLLECTION

Waving the digital brush will activate the inductor on the top of chime-bell (bianzhong), and the user will compose his melody. The sounds will be saved in the digital brush.

LEARN CHINESE SCALE E=
宫、商、角、徵、羽)

LINK WITH CMA

There are many master classic music collected in Shanghai Museum. The visitor can use the sounds saved through the brush to re-edit them in the interaction table. They can learn the traditional Chinese scale, to reproduce the traditional master music and collect them.
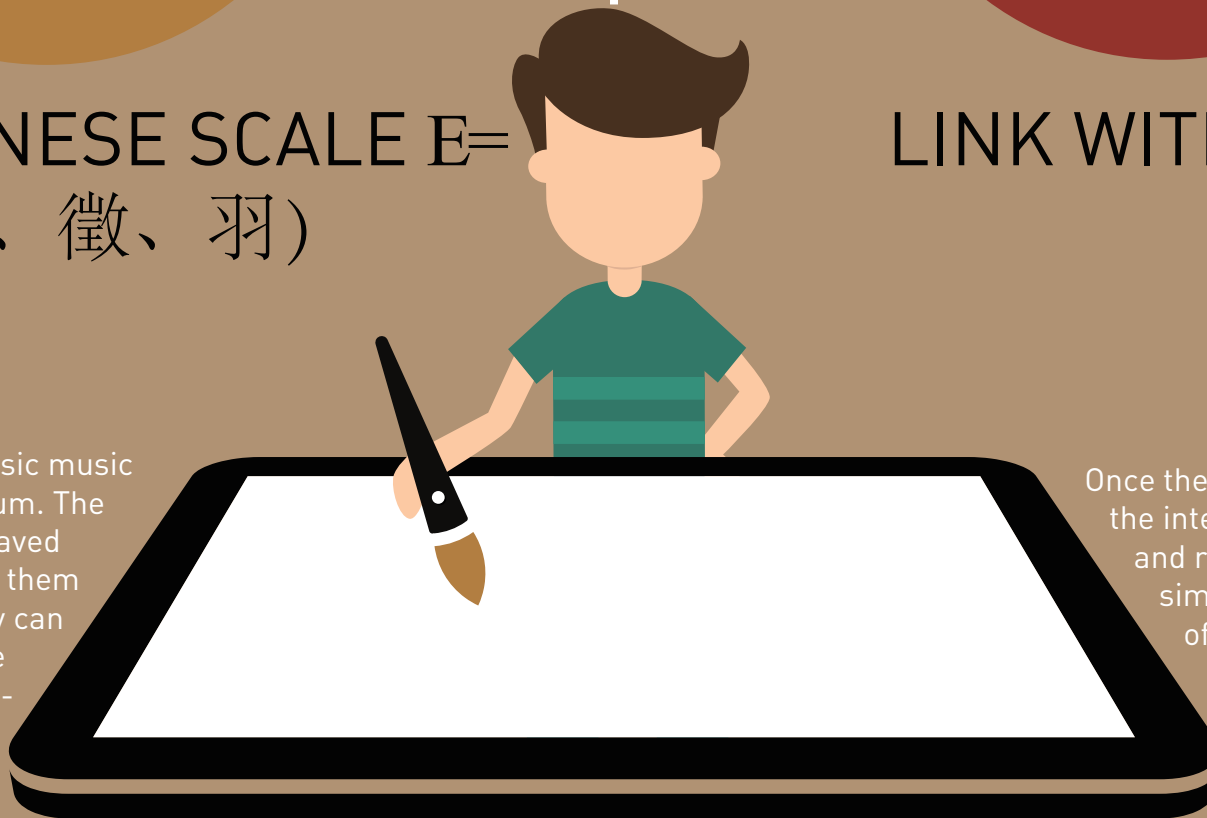
Once the visitor completed the activity in the interaction table, the system will find and recommand the music work with similar rythm from Cleveland Museum of Art. Meanwhile, they can keep the music as they leave the Shanghai Museum.

CALLIGRAPHY GALLERY
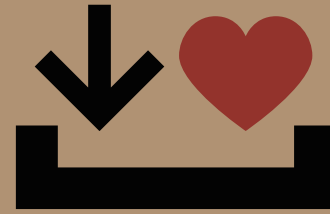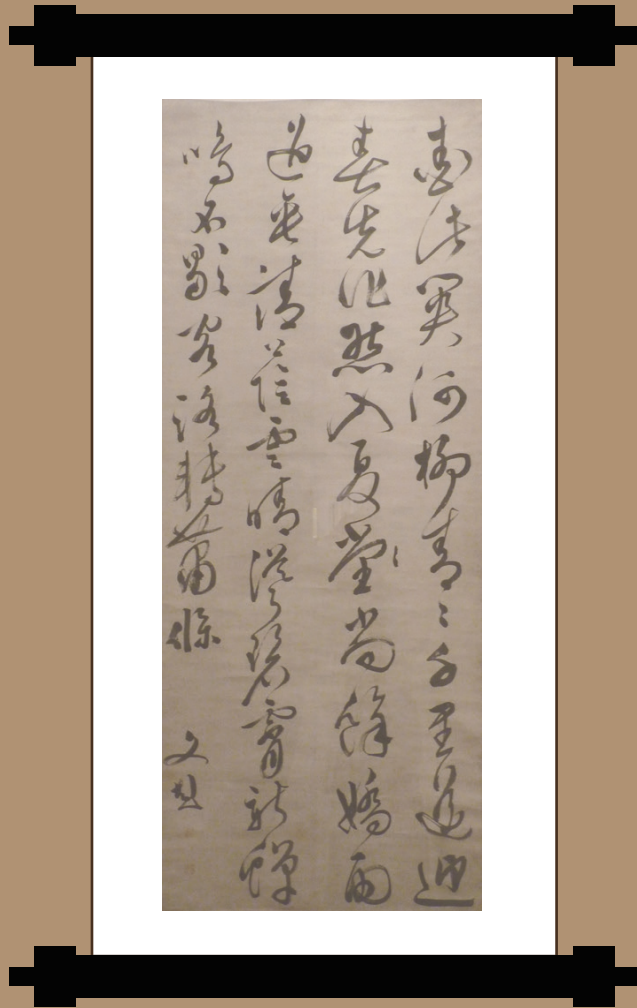
MARK RED
HEART

In the calligraphy hall, the visitor can use the digital
brush to mark a red heart. The brush will memorize all
the users preferences.

PRACTICE

Brush is the classic writing equipment in China. Visitor can use the digital one with interaction table to simulating and practicing the most famous master calligraph or the favorite ones collected in the brush. By means of that, the connection between visitor and culture and history is bulit.

SEARCH MEANING-FUL WORDS

For Chinese visitor, they can type the Chinese character in pinyin, to find the charcters made by different master piece or differnet dynasty.
For international visitor, they can use English word, and the system will translate it into Chinese, and give the ancient character.

MINORITY NATIONALITIE'S ART GALLERY

If the visitors are interested in ancient cloth pavilion, they would not like to take usual and boring pictures.
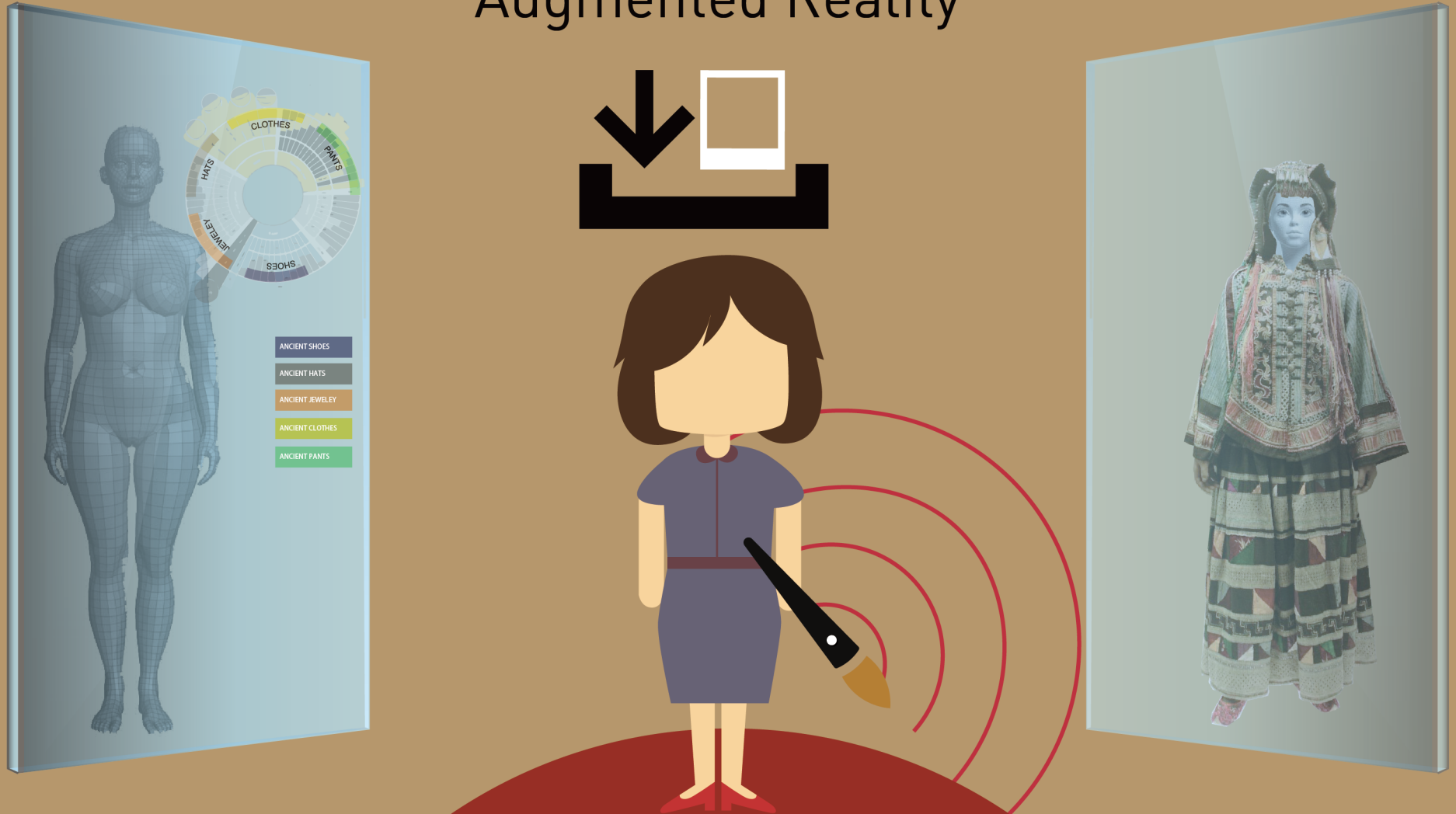Digital Glass is designed for those who want to engage in the cloth exhibiton, and can keep the experience as a good memory.

ADMIRE

Augmented Reality

CLOTHES

HATS

PANTS

JEWELRY

SHOES

ANCIENT SHOES

ANCIENT HATS

ANCIENT JEWELEY

ANCIENT CLOTHES

ANCIENT PANTS

Digital Glass will scan the visitor first, and get the 3D model of him. It will then match the ancient cloth with their body, and provide a photo booth service. The good point is that the visitor can not only see the front of the cloth to match with their body, but he canalso can see the back of it. It is three dimensional.
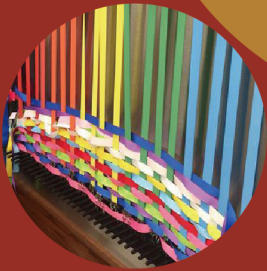
LEARN CHINESE FABRIC

With the interaction table and brush, visitor can learn the preparation techniques of the ancient dress patterns, and practice them in the game. The pattern can be chosen from the cloth they have select and saved.
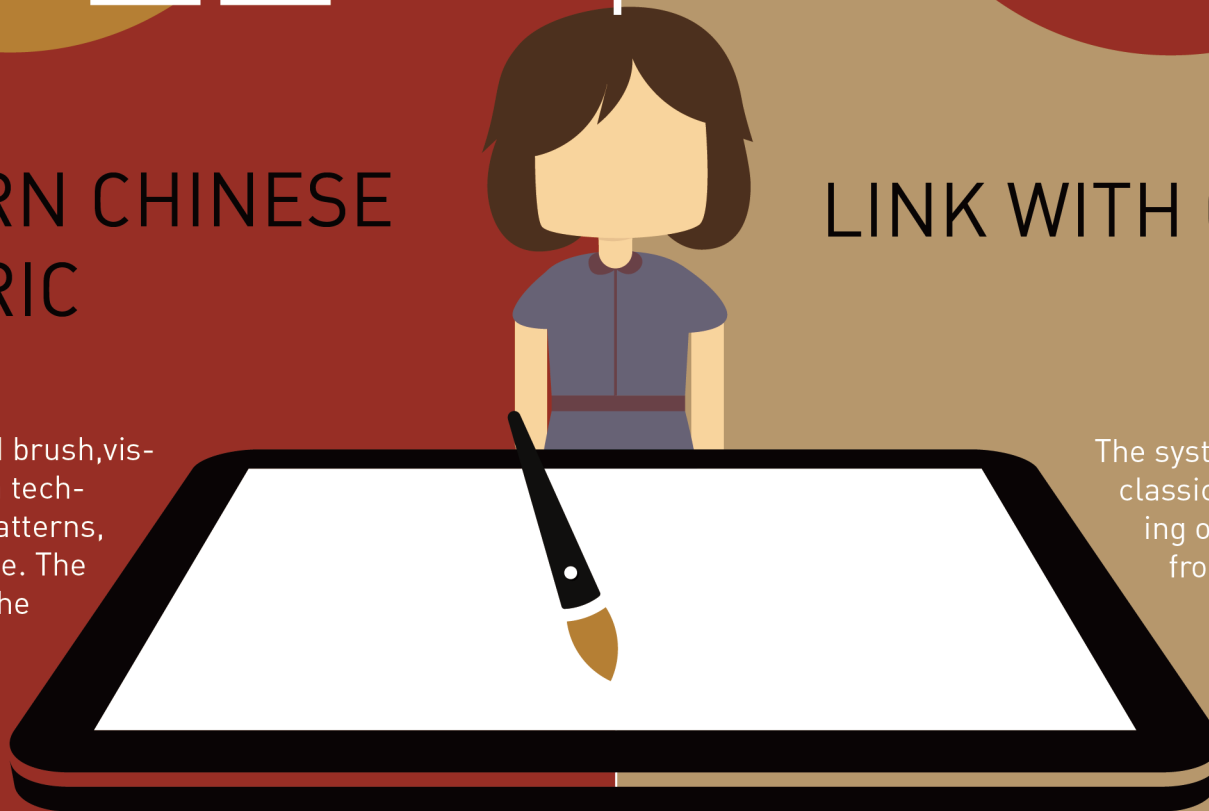
LINK WITH CMA

The system will find and recommend the classic cloth form master piece of drawing or status in the same period of time from Cleveland Museum of Art.

FEATURED TECHNOLOGIES

1. HAPTICS TECHNOLOGY BY MICROSOFT

Computer Haptics is the science of applying touch (tactile) sensation and control to interaction with computer applications. The word derives from the Greek haptein meaning "to fasten".

Haptics are already common in devices such as smartphones, where touch sensations such as clicks and vibrations enhance the user experience. When it comes to virtual reality, however, it's far more challenging to translate tactile cues. Auditory and visual feedback are fairly easy, and applications can be controlled using keyboards, joysticks, steering wheels, or, in the case of Kinect, the human body.

2. MT BUILDER: A USER INTERFACE TOOLKIT FOR MULTITOUCH TABLE TOP

MT Builder proposes a new multi-touch tabletop UI toolkit, based on the universal foundational metaphors OCGM (Objects, Containers, Gestures, and Manipulations). As a first step, MT Builder employs a hierarchical data representation model to store the multi-finger information, then it configures the gesture recognizers dynamically in order to improve the efficiency of recognition. Finally design: the components of the use rinterface based on OCGM are developed. Several typical prototypes are developed, such as multi-user info scan and city planning. The prototypes and the experimental results showed that MT Builder can efficiently support the construction and the prototyping of a table top user interface.

3. LEFT-RIGHT HAND DISTINCTION FOR MULTI-TOUCH TABLETOP INTERACTION (2EMTDriver technology)

In a multi-touch interactive system, distinguishing between user's left and right hands is of great significance for recognizing multi-finger gestures and further fully exploring the potential of bimanual interaction. However, the function of left-right hand distinction is beyond the capability of most multi-touch systems. In this paper, a robust solution to the left-right hand distinction based on the anatomical structure characteristic of hand is presented. Firstly, guided by the basic principles of gesture designing, the interactive tabletop hand-arm triangle model is proposed based on the anatomical structure characteristic of hand. Secondly, multi-touch interactive tabletop same hand contact points clustering method and

left-right hand recognizing method are given based on the triangle model. Then, the methods are integrated into MTDriver to detect and send contact points's left-right information to the multi-touch applications and new bimanual interactive technologies are demonstrated. Finally, evaluation shows that the solution can achieve high recognition accuracy and good time performance that could support fluency bimanual interaction on interactive tabletop.

4. KINECT

Kinect (codenamed Project Natal during development) is a line of motion sensing input devices by Microsoft for Xbox 360 and Xbox One video game consoles and Windows PCs. Based around a webcam-style add-on peripheral, it enables users to control and interact with their console/computer without the need for a game controller, through a natural user interface using gestures and spoken commands.

5. PROCESSING

Processing is an open source programming language and integrated development environment (IDE) built for the electronic arts, new media art, and visual design communities with the purpose of teaching the fundamentals of computer programming in a visual context, and to serve as the foundation for electronic sketchbooks.

6. ARDUINO

Arduino is a software company, project, and user community that designs and manufactures computer open-source hardware, open-source software, and microcontroller-based kits for building digital devices and interactive objects that can sense and control physical devices.

7. uSens

uSens, Inc. is a Silicon Valley start-up, founded in 2013, in San Jose, California. The core team includes researchers and developers of advanced user interaction technologies. These include gesture recognition, position tracking and 3D Human–computer_interaction (HCI) system design. The company's mission is to "find better and more efficient ways for people to interact with an ever-chang-

THE INTERACTION TABLE

/BEFORE THE ACTIVITY

BIAN ZHONG

Bian Zhong of
varies in size.
characters we
ones contain i
complete story
Zhou State to
pieces in total.

FIND THE MATC

55 cm high

Engrav
Story o

Hi Ling!
Welcome in the Bronze Gallery.

Here you will find over 400 bronzes of unique shapes, delicate décor and superb techniques will tell you the 1500 year history of the great Chinese Bronze. Age from 18th century B.C. till 3rd century B.C.
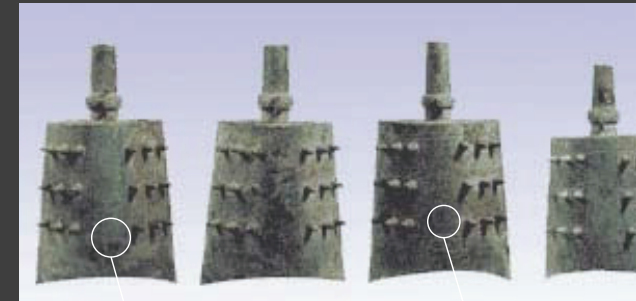
DISCOVER MORE!

f Su, Marquis of Jin is a musical intrument. This set of Bian Zhong
The largest is 52 cm high, and the smallest is 22 cm. A total of 355
re engraved on these Bian Zhong with sharp tools. The smallest
nscriptions with two lines and 11 characters. The inscriptions tell a
y about Marquis Su of Jin State, who received order of the King of the
attack Su Yi, in 846 B.C. This set of Bian Zhong is composed by 16
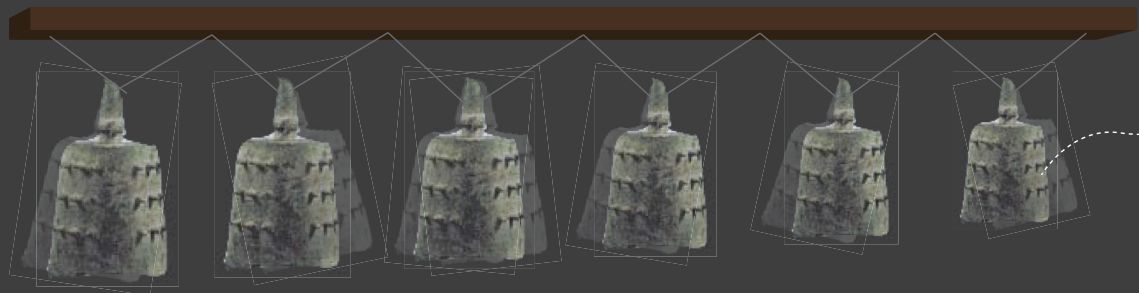
CH @CMA   **PLAY WITH THE BELLS**

22 cm high

ved characters.
of Marquis Su.

PLAY WITH THE BELLS!

Go to the Bian Zhang and make your own melody with
the bells, your brush will save it for you and you can
bring it home.

◄ GO BACK

宫

CONGRATULATIONS LING!
The melody you composed is beautiful.
Would you like to hear it again?

YES   **NO, NEXT STEP**

GOOD TO KNOW!

宫、商、角、徵、羽

C | Do   *D | Re*   *E | Mi*   *G | Sol*   *A | Xi*

In ancient China, to compose music were used five characters.
Do you want to listen to their sound? TOUCH THEM!

LISTEN TO YOUR MELODY

宫 羽 角

Move t
melodie

、商、角、徵、羽
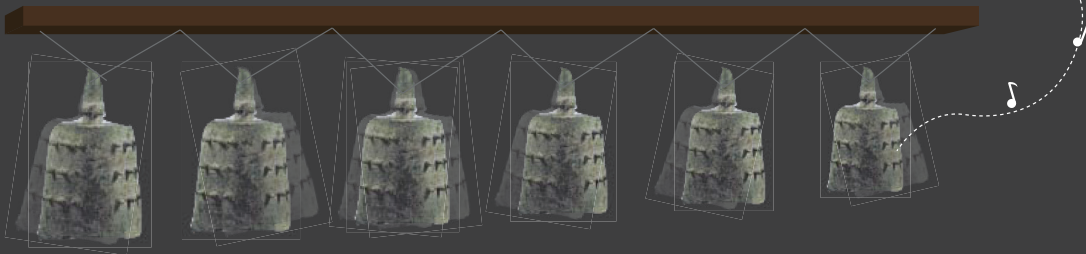
宮 羽 角 商 商 徵 角 徵 羽

COMPOSE NEW MELODIES   NEXT STEP   ♪

角 商 商 徵 角 徵 羽

the notes and compose different
es with traditional ancient sounds

GREAT! All your compostions are saved on your brush.Now you are ready for the next step. Go to the CALLIGRAPHY EXHIBITION

3rd Floor

CONCLUSIONS

Simultaneous experience between two museums was first discussed. Issue with that one is a twelve hour time difference. Therefore live video feed or other simultaneous interaction between visitors from different museums would not be possible.

In the beginning purpose of this process was to create shared unified experience between both museums. Process was started by observing what there is currently in Shanghai Museum. While continuing with this project, it was discovered that there are quite a bit more interactive technology used in Cleveland Museum of Art compared to Shanghai Museum. So it created additional challenge of introducing something that is new and suits on both museums.

The next steps for the future will be to develop all the activities for each exhibition hall inside the Shanghai Museum, and to develop the project more in depth for the Cleveland Museum of Arts. Furthermore our biggest aim is to create a community between Shanghai Museum and Cleveland Museum of Arts.

LIST OF IMAGES

LIST OF LITERATURE

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APPENDIX

BUSINESS MODEL

KEY PARTNERS

adonit

THE CLEVELAND MUSEUM OF ART

uSens Inc

水晶石 CRYSTAL CG

Microsoft

KEY ACTIVITIES

Get a clear target

Play with a game

DIY souvenir

KEY RESOURCES

Delicated team

Multi-touch tecnology

Game design

Network connection

VALUE PROPOSITIONS

Shared experience: visit one get two

Easy in the way-finding system

High level of engagement

Accessibility to information

CUSTOMER RELATIONSHIPS

Self- engaging

Share experience

Co-creation

CHANNELS

Museum website

WeChat

豆瓣 douban Douban

Facebook

CUSTOMER SEGMENTS

Local visitors

International visitors

Children & teenager

COST STRUCTURE

Product development & maintenance

System infrastructure & maintenance

Network infrastructure

Marketing

REVENUE STREAMS

Free for visiting

Membership

Souvernir