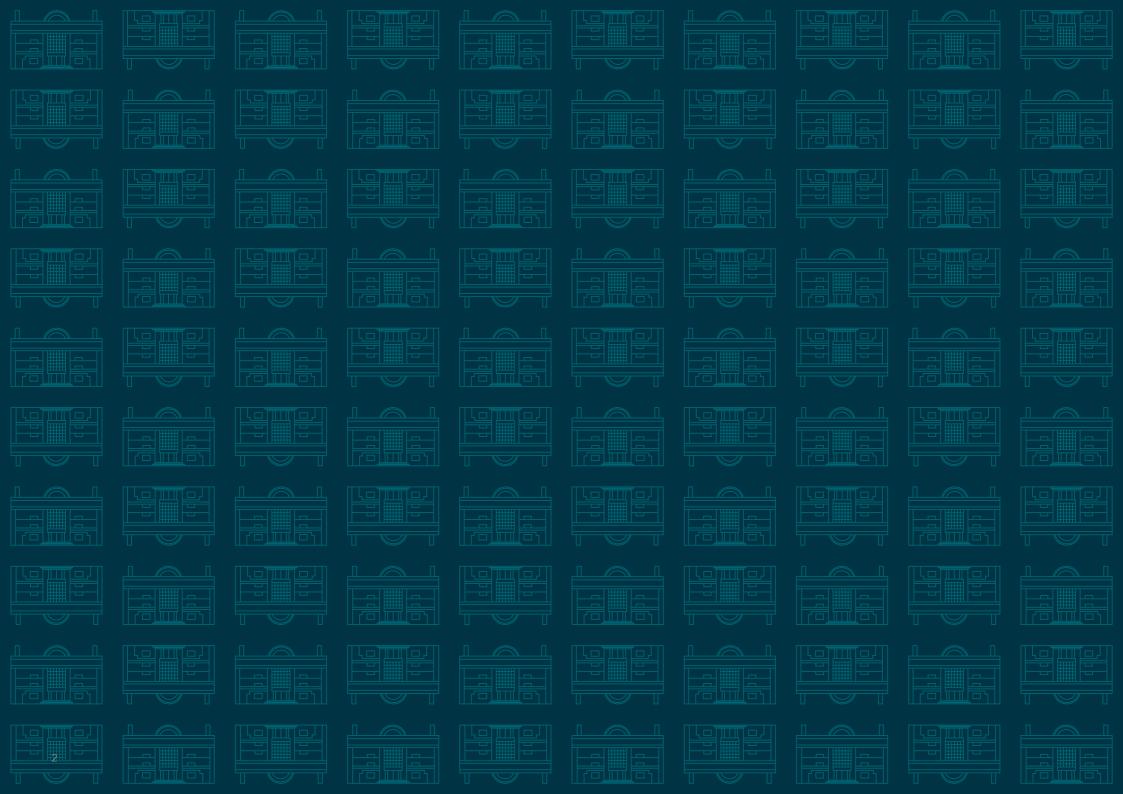


UNIFIED EXPERIENCE FOR THE SHANGHAI MUSEUM AND THE CLEVELAND MUSEUM OF ART

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April 29, 2016 Experience design: Interactions and environments Course code: 2270033 Prof. Kaja Tooming Buchanan Tongji University College of design and Innovation



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In the the following pages are shown the results from the analysis conducted during Experience Design's course at Tongji University on Shanghai Museum during the month of

The idea is to create a bridge between Shanghai Museum and Cleveland Museum of Art, creating new ways of getting both museums experienced and at the same to an unique experience that joins the two cultures, the two worlds. The final intent is also to give birth to new synergies starting from Shanghai Museum and D&I department from Tongji University's students and professors, in order to create and share an achieved knowledge and lay the basis for future collaboration with the museum's institution itself.

April. The brief lead to an elaboration of a specific methodological approach that takes care of the different phases of the project and is a start for preliminary conclusions.



As a museum of ancient Chinese art, Shanghai Museum possesses a collection of ancient Chinese works of art are specially celebrated in the world.

Founded in 1959, the museum developed very quickly in aspects of acquisition, conservation, research, exhibition, education and cultural exchanges with other institutes. In 1992, the Shanghai municipal government allocated to the Museum a piece of land at the very center of the city, the People's Square, as its new site. Its unique architectural form of a round top with a square base, symbolizing the ancient Chinese philosophy that the square earth is under the round sky, is a distinguished architectural combination of traditional feature and modern spirit. The present Shanghai Museum has eleven galleries and three special temporary exhibition halls.- Current situation—what is happening to bring about the need for this project.

Lately the Shanghai Museum expressed the will of expanding. They were assigned a piece of land in Pudong to build a second building, called West Hall Xi Guan. Half of the collection will be moved to the new building allowing more space at the current location. During an important meeting held on the 19th of April 2016, the Shanghai Museum's director claimed the need of refresh and innovation, improving the experience that the museum wants to offer to the visitors. The new program is called WINDOWS which stands for Wisdom, Interaction, New, Diversity, Open and World. The main goal is to reach not only the Shanghai community, but all the country and the world.

ORGANIZATION PROFILE

MUSEUM CONCEPT

PURPOSE

"Contemporary museums are virtual and physical spaces that facilitate aesthetic, practical and intellectual experiences and tell stories in order to stir curiosity, emotions and memories, before, during and after the visit."

Our definition of an "ideal" museums.

The purpose of this project is to create a **shared experience** for visitors to the Shanghai Museum and the Cleveland Museum of Art. The experience would be facilitated simultaneously at both institutions, with the vision of a **unified experience** that draws on the strengths of both institutions.

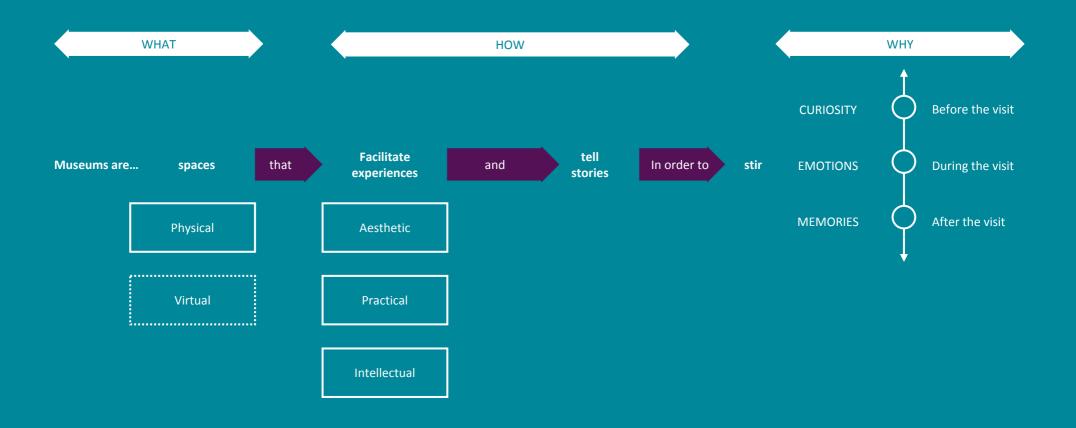


Figure 1. Concept map of an ideal museum

METHODOLOGY

PHENOMENOLOGICAL OBSERVATIONS AT SHANGHAI MUSEUM

Purpose: To understand the original motivation of people and the potential desires behind conscious behaviors.

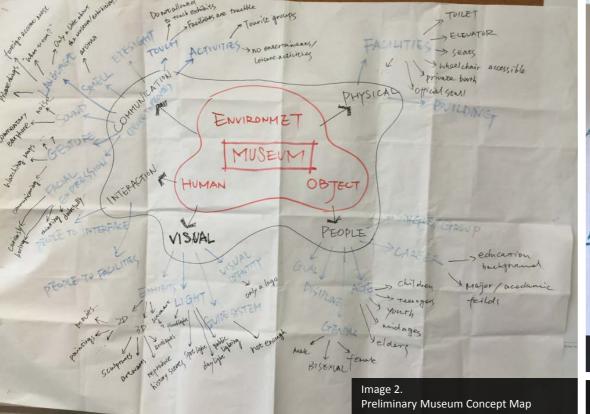
	Total observed hours	18 hours
 Catalina 	Friday 4.8.16 at 9:30 am	3 hours
• Vera	Monday 4.11.16. at 11:30 am	3 hours
	Monday 4.11.16. at 9:30 am	2 hours
• Sara	Saturday 4.4.16. at 11:30 am	2 hours
• Li	Friday 4.08.16 time 13:30 Monday 4.11.16 time 13:30	2 hours 2 hours
	•	2
• Franck	Friday 4.08.16 time 13:30 Monday 4.11.16 time 13:30	2 hours 2 hours

OTHER METHODOLOGIES

- Brainstorming
- Website Analysis
- Photo Elicitation
- Sketching

COMPLEMENTARY ACTIVITIES

- Lecture about Chinese Ancient Culture Prof. Chen Yonggun
- Seminar with the Museum leadership and the Tongji University





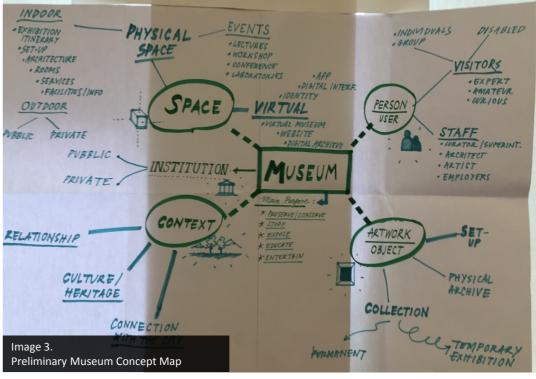


Image 5. Observation descriptions

No signs directing to the museum.

People stilling on the cubes next to the fountain and under the bionze "scelptures" shade

People taking pictures facing the fountain and not the museum

No Injo regarding the jount, show

ENTRANCE

People chatting between their own groups or looking at their 19 No info, about the muteum

After a passing security some people got a ticket some did not.

First Exh. Room pert to the entrance is not readily visible, people head directly to the court yard.

People waiting in groups, standing in the middle, watching upstairs or their maps.

" silling in the stairs (not only old & mob. restricted but also upway)

2 puncts next to into booth (4: Digital screens -> people looking at it 2: wooden -> rebody reading it, but taking pics with it.)

Notsy , bright , no specific smell.

GENERAL / BUILDING

Escalator : Busy | stairs : not so busy

stairs low handrail.

All the floors look the same was

2 Exhibits halls are blocked by the stairs & escalators (1st floor)

No accounte dampfining (Noisy 11)

Crowds gather randomly at the ballonies looking at the courty and.

Restaurant not connected to the exterior

EXHIBITIONS

. People... - taking pictures without artifacts without checking the Art. itself

- old than (2) discuss an ART, young couple standing next to them middle aged people using audio quiet.

 Some people listening to the audio quiet at full volume.

- Space ... leaflets plaud north to the door are not taken of the when entering the Exhibits, but when Leaving it.
 - Inhoductory text is not read, or just the first sentences
 - Each room has one theme and the artifacts are ordered chronologically.
 - Besides the entrance's text there aren't any other explanate.
 - All objects are displayed at the same height.
 - Hems of very of sizes are displayed mext to each other.
 - IN A
 - from the exterior all the exhibition rooms look the same end, makeful
 - All exhibit are designed differently a making use of of materials · wooden floors / carpet
 -solid walls / glass walls etc.
 - clear pathways ["free"/unclear pathway.
 - Plants used as borniers to organize the space & combol flux.
 - Dimly 117

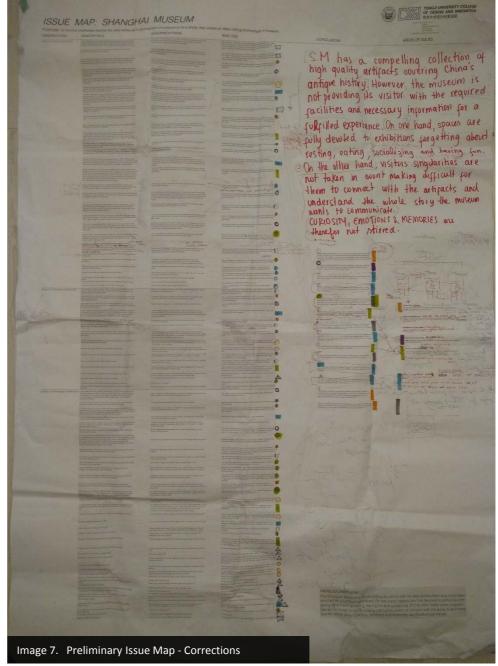
- . One "game" about calligraphy. No one used it.
 Not really a game, * no options.
- 2 interactive screens next to the entrance. Size One family was using it.

RESTING

Halls ... - Benches placed on the corners of each floor

- Next to the toilets
- Depending on the floor the benches were or not well lit: last floor -> DK other floors -> DARK!
- wooden lacquered benches \$2 m.
- always busy
- People sitting alone or in couples
- Some were waiting n Chinese Costing at their smartphones (apps not musel relate) Tourists and etc chanese people Costang at the map or their guides.
- . No verbal or physical interacts between strangers
- Exhibity Same benches as motories







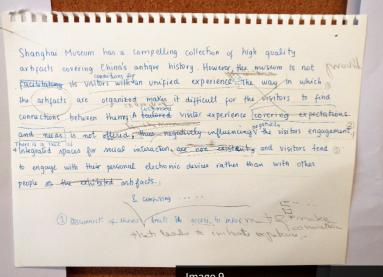
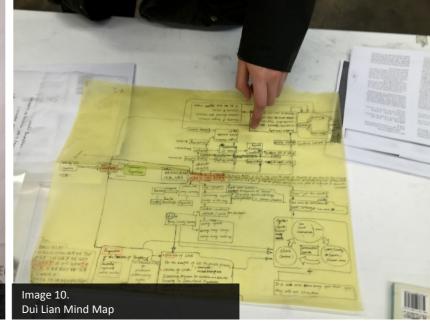
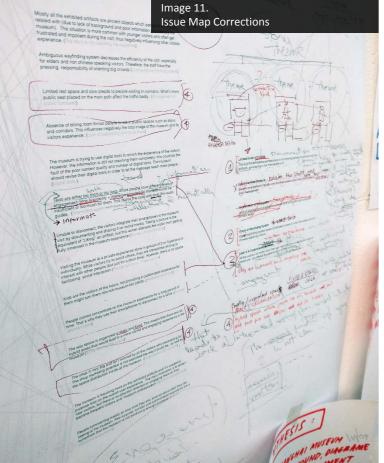


Image 9. Preliminary Problem Statement







ISSUE MAP SUMMARY

The following Figure offers a synthetized version from the Issue Map, focusing on the observations leading to the conclusions and areas of issues and the problem statement



AREAS OF ISSUES

DISCONECTION OF THEMES

The design of the exhibitions is not providing access to information and to meaning of artifacts. Connection between themes are therefore hard to be made. That leads to failure to create an unified experience.

CONFUSING WAYFINDING SYSTEM

Visitors find hard to navigate the museum and often feel frustrated and lost influencing their emotions towards the museum.

FIXED AND STATIC ORGANIZATION OF SPACE

The spaces offered by the museum are fixed and static and its function is not clear, which leads to the lack of integrated spaces for social interaction.

LACK OF A CUSTOMIZED VISITOR EXPERIENCE

The museum is not offering customized tools that address the variety of needs that visitors have: time availability, knowledge background and expectations are factors that influence the visitors' engagement. These factors are not taken in consideration by the museum.

SHIFTED FOCUS

Visitors' focus is shifted from engaging with artifacts to engaging with personal digital devices, distracting them from developing a fulfilled experience.

Shanghai Museum has a compelling collection of high quality artifacts covering China's antique history. However, the museum is not providing conditions for an unified experience. Disconnection of themes and confusing wayfinding system limits the accessibility to information and to make connections, that leads to inchoate experience.

A lack of a customized visitor experience is negatively influencing the visitors engagement. There is an absence of integrated spaces for social interaction and visitors' focus is shifted to the personal digital devices, distracting them from developing a fulfilled experience.

PROBLEM STATEMENT

CENTRAL IDEA

Duì Lian 对联, or couplet, is the perfect metaphore for this collaboration project between a **western** and an **eastern** institution. A couplet is a pair of lines of metre in poetry that usually comprises two lines that rhyme and have the same number of characters.

The following couplet is taken from *Shi Poem* by Li Lienfung and was encountered at the gate of the Big Buddha Temple. It is the base to compare the two cultures and institutions, and will be our concept for the remaining part of the project.

睡佛长睡,睡千年,长睡不醒。 问**者永**问,问百世,百世难明。

The sleeping Buddha is in his long sleep.
He sleeps for thousands of years.
From his long sleep he will never wake up.

The questioning person is forever asking.

He may ask for hundreds of centuries, and yet, for all his forever asking, he will find it difficult to know the answers.

PASTE DE POEM MAP HERE

USER PROFILES*



Primary User Chinese Tourists

Age: 35 – 70 years old

Work hours: 40 hrs/wk, Retired

Education: Mostly High-School, some Bachelor

Location: China

Technology: Basic smartphone use knowledge

Family: Single, Married, Family

^{*} User profiles were determined by phenomenological observation at the Shanghai Museum and its 'surroundings.



Secondary User Foreign Tourists

Age: 30 – 70 years old

Work hours: Typically 40+ hrs/wk, Retired

Education: Bachelor or Higher Location: Europe and USA

Technology: Basic smartphone use knowledge

Family: Single, Married, Family



Tertiary Users Chinese Students

Age: 14 – 18 years old

Work hours: 40 – 50 hrs/wk at work or home Education: Working towards a High Scholl degree

Location: Shanghai and cities around Technology: Advanced smartphone users

Family: Only Childs



PERSONAS

Primary Persona MingJu Chang – First time visitor

Age: 51 years old

Occupation: Owns a small restaurant specialized in chicken

Work hours: 40 hrs/wk Education: High School Income: 190.000 RMB yearly

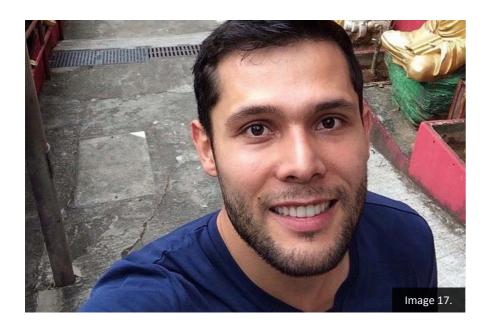
Location: Qīngyuǎn, Guandong Province

Technology: Basic use of smartphone: WeChat and Camera Family: Married, has recently become a grandmother

Goal: Buy the local next to the restaurant to serve more clients

Hobbies: Dancing

Visit Expectations: Take many pictures to show her friends once she is back



Secondary Persona Christoph Wagner – First time visitor

Age: 37 years old

Occupation: Accountant at Bayer

Work hours: 40 hrs/wk, mostly in home office

Education: Masters Degree Income: 40.000€ yearly Location: Cologne, Germany

Technology: Experienced Mac user

Family: Single

Goal: Become a successful independent accountant and travel the world.

Hobbies: Jogging, Craft Bear, Hiking, Photography Visit Expectations: See in 3 hours as much as possible



Tertiary Persona Jun Kai Wang – Occasional visitor

Age: 14 years old Occupation: Student

Work hours: 55 hrs/wk, divided between school and home.

Education: High School

Income: 5200 RMB (pocket money from his parents)

Location: Nantong, Jiangsu Province

Technology: Skilled smartphone and computer user.

Family: Only child, lives with his parents.

Goal: Become a League of Legends champion
Hobbies: Playing League of Legend online

Visit Expectations: Skip school and have fun with his friends

HYPOTHESES

If the Shanghai Museum offers video, sound, infographics, games and other interactive activities to complement the exhibited artifacts then visitors of different backgrounds and characteristics would be more engaged and focused on the artifacts.

If the Shanghai Museum improves their communication system as well as the overall organization of the exhibitions, then conditions for an unified experience would be created.

If the Shanghai Museum offers integrated spaces for socialization then visitors would spend more time in it and would like to come back.

GOALS & OBJECTIVES OF THE PROJECT

What do we seek to accomplish?

The purpose of this project is to create a **shared experience** for visitors to the Shanghai Museum and the Cleveland Museum of Art. The experience would be facilitated simultaneously at both institutions, with the vision of a **unified experience** that draws on the strengths of both institutions.

Our project aims to provide a unified experience that creates a connection between Shanghai Museum and Cleveland Museum of Art in order to create visitors engagement amongst the artworks, the institution in itself and the related one.

The benefit of the project will firstly to the visitors of both the museums, the staff but especially to the cities in which all these new synergies would take place.

Goals:

- 1. Make the Shanghai Museum more appealing to visitors.
- 2. Creation of an interactive unified experience between the museums.
- Improvement of the overall experience.
- 4. Improvement of the spatial organization.

WHO WILL BENEFIT—WHO WILL THIS PROJECT SERVE?

Shanghai Museum main users are the Chinese tourist from 35 to 70 years that come from all over the country to discover the big city of Shanghai.

Work hours: 40 hrs/wk, Re(red Education: Mostly High-School, some Bachelor

Technology: Basic smartphone use knowledge

Family: Single, Married, Family

Secondary, but still important users for the Shanghai Museum are the western tourists who come from mostly Europe and United States. The average age is from 30 to 70 years old.

Work hours: Typically 40+ hrs/wk, Retired

Education: Bachelor or Higher Technology: Basic smartphone use knowledge

Family: Single, Married, Family

Third main users are the group of Chinese student that come because of didactic propose guide mostly from the teacher. They go from 14 to 18 years old.

Work hours: 40 – 50 hrs/wk at work or home Education: Working towards a High School degree

Location: Shanghai and cities around

Technology: Advanced smartphone users Family: Only Childs

We want to engage the wider users as possible but mainly focusing on the primary, secondary and tertiary users. The new experience must attract young kids, involving them into the museum path in an interactive way. The new storytelling has to be fun and exciting as well as scientific and trustable for the ager audience.

In order to develop an experience tailored on the Shanghai Museum and also for the Cleveland Museum of Art in the United State we have few but really important constraints which are:

The different time zone of Shanghai and Cleveland which is approximately 12 hour of different;

The different languages spoken by the people;

The difference cultures that characterizes two different ways of thinking and approaching other people, environment and interfaces;

The different continents shown in the two museum: one focused on the Chinese history and culture while Cleveland Museum provide more a wider and generic information about art world wide.

WHAT ARE THE CONSTRAINTS ON THE PROJECT?

WHAT ARE THE RISKS AND WHAT ARE THE BENEFITS OF THE PROJECT?

WHAT ARE THE DESIRABLE FEATURES OF A SOLUTION?

The risk that we can occur during the development of the project are related mostly with the cultural background of each person. As a museum it is visited by a variety of tourist coming from every country of the word. As designers we should be able to think about the language barrier and provide an experience that can be understood by everyone.

We don't have only provide a connection between the two museums but a connection with all the world.

This last statement is a big risk but form it, it can come out a valuable benefit; creating connections world wide starting from the Shanghai Museum.

Nowadays every kind of service is heading on providing mostly a memorial experience rather than focusing only on the product sold or service provided. People are not longer satisfied by only get what they ask for, they want to have memories good enough to come back and become loyal to the main unity. So also museums have to improve the designed experience path to the tourist. Beside the collection preciously exposed behind glassy boxed, museums has to put each visitor in the center of the attention, entertaining and enrich every person's personal knowledge from young kid to retired people.

To do so important features could be interactive surface, workshop and activities. Customized museum path according to the user profile and interests.

CENTRAL IDEA OF THE PROJECT

The Sleeping Keeper Project wants to provide a new museum experience twisting the precocious expectation of the visitor.

We provide designed path tailored on each person according to the user profile.

The new experience is based on the concept of a game who wants to engage the audience by making the visitor eager of learning and discover information around the museum. In order to reach this excitement The Sleeping Keeper makes in contact people from the two opposite sides of the world.

During the exploring game every team can be involved into different activities and tricks that trigger its curiosity. The museum setting is also redesign in order to offer more interactive and dynamic way of learning.

The previous idea was to directly connect visitor from Cleveland Museum and the visitor in the Shanghai museum but the different time zones mentioned before as risk and the language barrier made us move over to something guidable by devices that can solve these two problems.

THE SLEEPING KEEPER

The Sleeping Keeper offers an interactive and design thinking approach that define a new way to discover a museum and be connected with people with the same interest in another museum.

According to the person profile and preference he chooses the path to go through. According to this path he can be in a team or alone.

To reach the main goal the team has to go through a virtual game related with the museum contents. The score will be created by the total amount of the correct answers that the team guesses according to the museum questions. The questions are designed in order to provide to the visitors a wide and complete view of the museum collection.

The final score will be compared with the team situated in Cleveland whose chose the same topic path. Because of the time zone the teams will not compete with each other but each of the team will compete with a team whose previously has done the game. It is a chain of teams that compete with each other. In this way people will be connected because providing the personal profile with the competitor team, creating link among people with the same interest and goals.

Our main purpose above all is to engage the visit and make the museum experience a memorable moment that can make people go back to the Shanghai Museum.

We want to go beyond the base needs of the museum in which information about a certain topic are simply offered to the to the visitor. We want to provide an experience in which every person can have fun and learn indirectly through design thinking approach that engages him into practical activities and interesting games and quizzes.

The importance of creating teams is also to connect people inside the museum. During the 'on field research' in fact it came out that people not only don't interact with the museum artifacts but also they don't interact with each other. They passively go through the museum exhibition areas interacting only with the personal phone, taking pictures and entertaining themselves after few minutes spent in the building.

Connecting people also outside of the Shanghai Museum walls increases the curiosity of the visitor to get to meet unknown people belonging to a completely different context and culture.

Even though the teams won't have the possibility to get to know each other personally, members of the teams can get in touch with the opposing team groups users profile members and ask for help in the networks website.

This new way of going through the museum exhibitions twists the vision of what the museums is made of. We want to put the customer in the center and make him the main character, the artifacts of the museum exhibition comes right after. They are the key element to provide an exciting experience.

Our aim is to involve the visitor into the museum knowledge of Chinese Culture and at the same time tell a story of the city that it's home to it, Shanghai. The experience that we want to redesign is tolerated for principally our costumer that have a base computer knowledge and can deal with interactive surfaces. The project tries to abolish as much as possible barriers between the single, unknown person from the general context and the people that surrounds him. In this way we want to provide a different variety of touch-points that makes the people collaborate with each others as a team but also interact with the environment. Thanks to the "research on field" and the information captured through observations into the museum we discovered that people want to interact with each other more than learning passively by reading long texts of explanations. The Sleeping Keeper will trigger his personality and the curiosity, we want to bring out the friendly competition feeling and make people switch from a passive mode to a dynamic one. The reason why we want to make the two teams belong to a different "world" is because the different culture and features will nourish people's curiosity even more and it is also true that real people give more trust to the all experience.

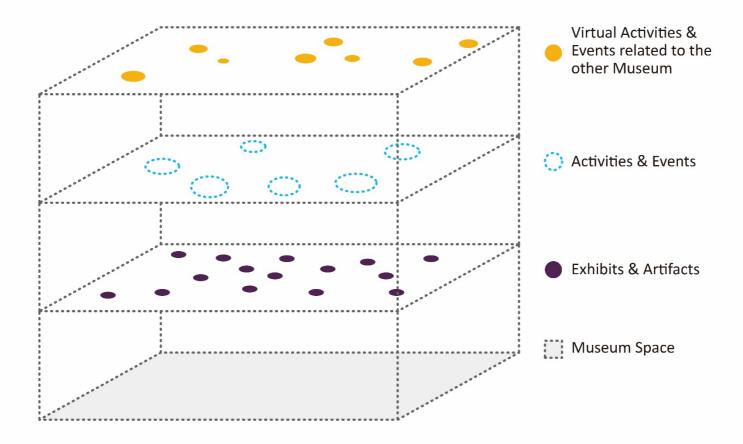


Figure 4. The 4 levels of the museum

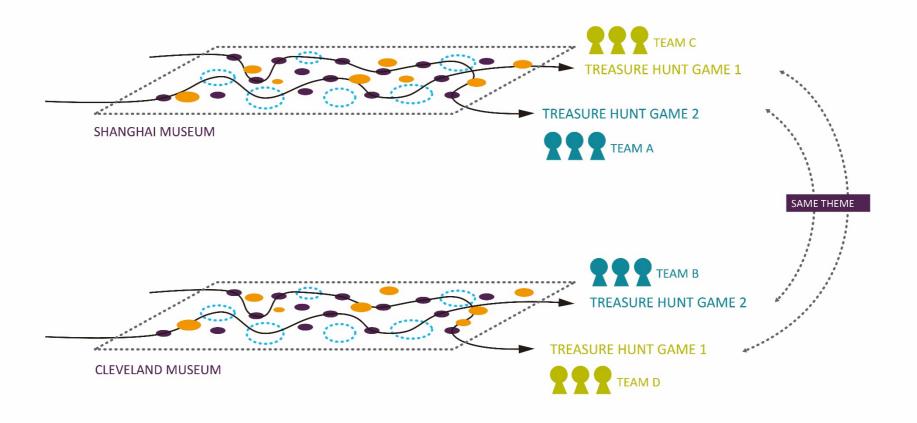


Figure 5. Game structure

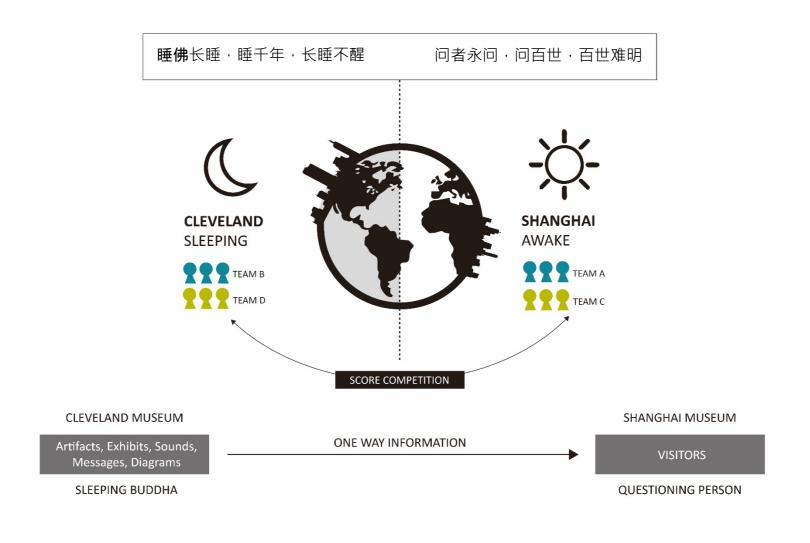


Figure 6. Dui Lian in action 1/2

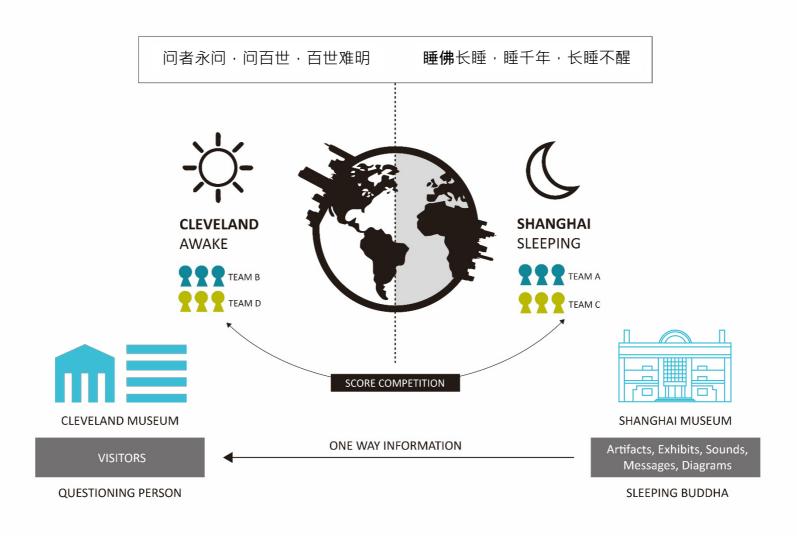


Figure 7. Dui Lian in action 2/2

The experience that we offer is a perfect integration of what is missing in the museum now, by the way it fits with the museum image and principles, offering a complete experience along the galleries. The visitor can feel comfortable and create his own experience through artifacts, but being free to decide what is going to be his own personal journey. There is no technological barrier as the interfaces are simple and intuitive, in order to enhance the wider amount of people.

That's why, once the visit is over the visitor feels fulfilled by the activities he has been experiencing and this will lead him to the creation of a memory that will affects his engagement also after the visit.

The purpose is to integrate the given information from the museum with simple interfaces that are concretely embodied by some portable devices provided from the museum (Tablet) that guide the user during the visit. What is more is that the user can chose which kind of journey he wants to do, for example he can interact as a single or as a group, getting in touch with new people from Shanghai museum or from Cleveland museum of Art.

Through the personal device the visitor connects with the single artifact that every time provides some different activities, and he can custom the features of the experience, as language, mode, difficulty, or time.

This new way of going through the museum exhibitions twists the vision of what the museums is made of. We want to put the customer in the center and make him the main character, the artifacts of the museum exhibition comes right after. They are the key element to provide an exciting experience.

Our aim is to involve the visitor into the museum knowledge of Chinese Culture and at the same time tell a story of the city that it's home to it, Shanghai. The experience that we want to redesign is tolerated for principally our costumer that have a base computer knowledge and can deal with interactive surfaces. The project tries to abolish as much as possible barriers between the single, unknown person from the general context and the people that surrounds him. In this way we want to provide a different variety of touch-points that makes the people collaborate with each others as a team but also interact with the environment. Thanks to the "research on field" and the information captured through observations into the museum we discovered that people want to interact with each other more than learning passively by reading long texts of explanations. The Sleeping Keeper will trigger his personality and the curiosity, we want to bring out the friendly competition feeling and make people switch from a passive mode to a dynamic one. The reason why we want to make the two teams belong to a different "world" is because the different culture and features will nourish people's curiosity even more and it is also true that real people give more trust to the all experience.

We have been analyzing some cases during the process for our final project delivery, and it came natural to study Gallery One in Cleveland museum of Art as it is the museum co-operating with Shanghai museum.

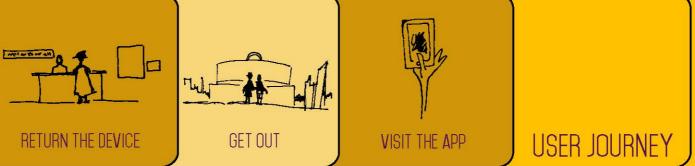
Gallery One is a project developed in CMA that took place in 2013, through a six-week testing period until its public opening on January 2013. The museum has reinstalled and reinterpreted the entire permanent collection in new and renovated gallery spaces. The ending result is an innovative blend of art, technology, design, focusing on the user experience which emerged through the unprecedented collaboration of staff across the museum. A multitouch MicroTile screen is used together with the museum's app for iPad, iPhone and Android. In addition to this some more media material is offered to the user that can remotely have access to nine hours of additional multimedia content including audio tour segments, videos, and additional contextual information. We chose this Business Case not only for the additional values that provides to the museum experience, but also because the same technologies can easily be reproduced and connected in Shanghai Museum creating a perfect match.

The operation we projected for Shanghai Museum will some costs, that includes the whole renovation process. Firstly the museum will have to face the cost of the installation of screens, speakers, microphones, touch screens, light installations and other types of sensors through all the gallery path. The second step is the acquisition of the remote technology, as tablets (300 pieces) and the development and design of the app for the devices(Database driven custom functionality) and some additional Web Services.

THE USER JOURNEY







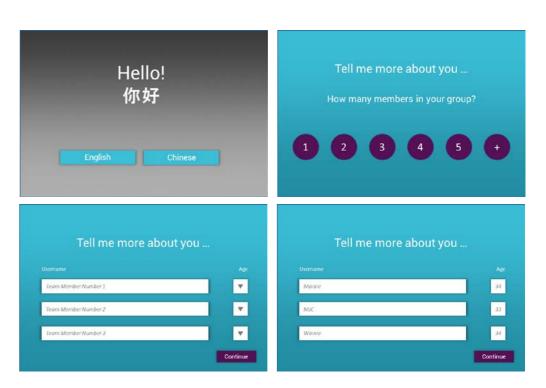
CHALLENGE

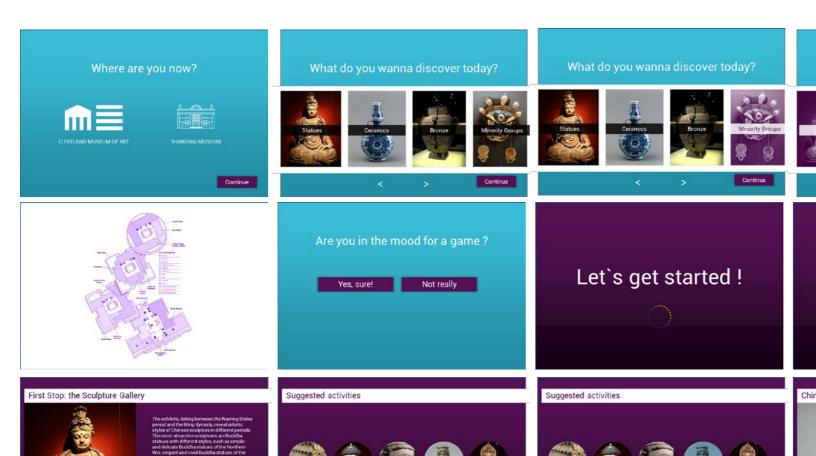
Figure 8. User Journey

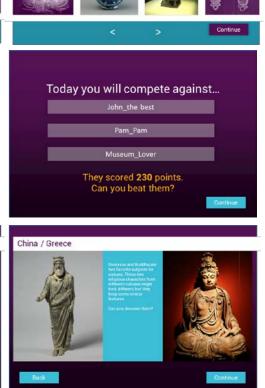
PRELIMINAR GAME INTERFACE

The following screenshots are a mockup of the navigation through the game

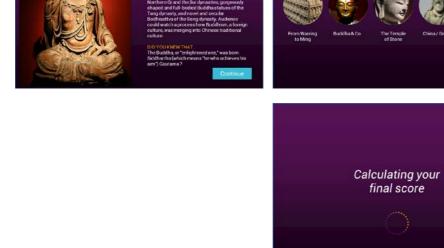


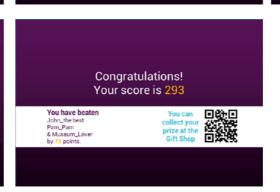






What do you wanna discover today?





BUDGET

The operation will briefly take into account of these expenses:

- 50 screens (25 touch screens and 25 monitors)
- 15 speakers
- 15 microphones
- Light implementation
- Tablets
- App development
- Additional web services
- Fees for app launch

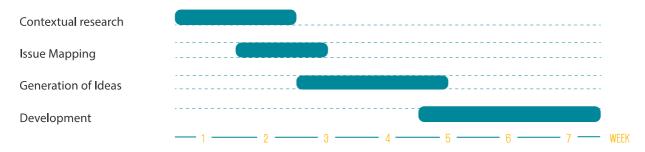
- 50 screens	- 45809.96 CNY	- 7000 USD
- 15 microphones/speakers	- 3272.14 CNY	- 500 USD
- light implementation	- 32721.40 CNY	- 5000 USD
- 300 tablets	- 458099.62 CNY	- 70000 USD
- app development	- 22904.98 CNY	- 3500 USD
- additional website services	- 981.64CNY	- 150 USD
- fees	- 654.43 CN	- 100 USD
- design consultancy (150h)	- 58898.52 CNY	- 9000 USD

The final cost of the operation is estimated to be of 92.250USD (623342.70 CNY), taking into account of the mentioned costs.

The renewing project will take place during a period of 2 months, in which the museum will be partly closed to visitors, making sure that no more than one gallery stay closed.

TIMELINE AND SCHEDULE

The project will take place in a period of 7 weeks as follows;



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LIST OF IMAGES

All the images taken by the members of the group, except otherwise stated.

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