# Museum Experience

## through *Treasure Hunting*

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# PREFACE

Millions of people visit museums all over the world every week. Museums inspire the curious minds of our current generation with the deeds and ideas of past generations. Bearing such immense responsibilities, the design of museum experience becomes significant. Museums must not be mere books of history and culture. They must exhibit a dynamic experience capable of exciting the curiosity of the future generations about our fantastic achievements and thus inspire the posterity to attain even greater accomplishments. This study explores an alternate dynamic experience design for museum exploration utilizing the concept of gamification through treasure hunting. Popular museums in Tokyo are surveyed and possible venues for application of this experience design are identified. The process of experience design is carried out and a test -run is organized at a museum venue. Hurdles encountered in the design process and the concluding participant responses are discussed to suggest possible improvements for a more effective experience design.

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# INTRODUCTION

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Before any discussion on the proposed experience design for museums may be taken up, it is imperative to explain the need for a new experience design and the objectives of this study. In this chapter, museum experience in the present times and its inherent shortcomings would be briefly discussed followed by an introduction to the art of treasure hunting and its fundamental characteristics. Finally, using this introduction as background, objectives of this study would be enlisted.

## 1.1 Museusms of the world

Museums have been collecting, preserving and exhibiting various arts and artifacts around the world for over 2000 years. Even though most ancient museums began as private collections closed to the general public, most of the museums today are open for public viewing and are visited by millions of people of various age groups every week all over the world.

Museums in present times exist to serve various purposes. From collection and preservation of ancient artifacts to the exhibition of latest works of art, from the display of popular scientific principles to the exhibition of religious artifacts. While different types of museums have different primary objectives, one common aim binding all the public museums is

SAINT-RÉMY 1889

*Most modern museums have the same static experience design*

nonetheless present. All public museums inevitably aim to enhance the public's awareness of cultures and understanding of our modern world. Museums aim to engage the curiosity of the visitor and astound them with the glorious displays of various arts, artifacts or reproductions of scientific phenomenon. Younger generations can take inspiration from the fantastic scientific and cultural achievements to attain even greater heights in the future.

While this noble objective is commendable, measures employed by most modern museums to achieve the same are less so. Most of the museums treat their visitors with a rather static experience. While the artifacts at display may be exotic and the collection exquisitely exhibited, the visitor experience still consists of merely browsing through the elements of the museum at one's leisure. Such an experience is akin to reading a book of history, albeit a glorious one. Despite the fantastic representation and brilliant realism of most exhibitions, their reception is inherently dependent upon the sincerity and personal enthusiasm of the visitors.

Another drawback of such experiences is the short length of time over which the subject impresses on the mind of the visitor. Even the most

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amazing display of museum collections would fade with time and with it any chances of learning or inspiration.

## 1.2 Treasure hunting

Earliest forms of treasure hunting appeared as searches for treasures of immense value thought to be hidden or misplaced by the nobility from ancient times. The key aspect of such hunts was the motivation for a big prize that drove searches far beyond the supposed capabilities of the human minds to solve even the most obscure clues in order to expose the hidden treasure[1]. Such campaigns could be organized only by professionals and would have been beyond the common people. However, the successful multiple broadcasts of the American Gameshow "Treasure Hunt" which televised sponsored treasure competitions finally brought widespread popularity to treasure hunting among the general public.

Treasure hunts have emerged in numerous forms in recent times. From a fun event for a group of kids with nothing more than a few toys to be won to national events involving a number of participants competing for a grand prize, all forms of treasure hunting are based on the same concept of using the allurement of a prize to lead to the solution of complicated riddles. Recently, treasure hunting has also been organized as an entertaining way to explore a place or as team building games[2].

While treasure hunts can be incredibly fun activities, their educational capabilities are also immense. In treasure hunts, similar to the phenomenon observed in design of video games, human behavior challenged by a difficult mission can persevere to great lengths while pursuing the target objective. Such an experience, with appropriate modifications in design, may also be applied in an educational sphere where the subjects are challenged with riddles closely related to the educational objectives. Within a treasure hunt experience design, the participants may be induced

1. Easton, D. F. "Heinrich Schliemann: Hero or Fraud?" The Classical World 91, no. 5 (1998): 335-43. doi:10.2307/4352102.

2. Sharma, Sunita, and Jo Geneen. "Team London Ambassadors hunt for a world record title." London & Partners - Telling London's story brilliantly. June 25, 2012.

to search for and discover the educational objectives by themselves as if in self-study environment. In contrast to the self-study environment though, there is no requirement of any strong personal motivation on the part of the participant to continue the study. Instead, participants are allured by the object of treasure hunting. Such an experience design not only makes the educational activity fun, but also ensures continued learning after the event as the participants learn the charm of self-learning and self-exploration.

## 1.3 Objecives of the study

With this background on the role of museums in spreading cultural awareness and the lack of dynamism in the current museum experience, an innovative new dynamic experience design based on the principle of treasure hunting is explored. In this design, the participants are required to search for and analyze information about the museum artifacts on display in order to answer the treasure-leading quest being posed. Such an experience is bound to not only enhance learning through single museum visits but also excite the participant's curiosity to continue the learning and exploration of the information about the artifacts on their own even after the visit.

Primary objectives of this study may be expressed as follows:

Test run: Primary objective of this research is to evaluate the feasibility of applying a treasure hunt based museum experience design to the museums in Tokyo. Basics of a treasure hunt design are explored from scratch and the design is suitably modified to comply with a museum background. Riddles targeting the educational objectives are designed as a part of the experience design. Appropriate museum venues are also examined and a test run is staged to evaluate the feasibility of treasure hunt experience design.

Analysis: Based on this preliminary design and test run, the observed response and experienced design obstacles are discussed and future ap-

proaches for a more effective treasure hunt design are suggested.

# DESIGN 2

This chapter forms the core of this report. Entire process of treasure hunt design from reconnaissance to test run organization is detailed here. The treasure hunt design is broadly divided into three stages: primary reconnaissance of the various museums in Tokyo to determine suitable venues at which the event could be organized, detailed background study on the selected museum for riddle formulation, and finally the on-site event organization to examine the practical feasibility of the event design.

## 2.1 Stage I: Reconnaissance

Tokyo, being the capital city of the nation and a center of modern art and culture, is home to more than a hundred organized museums. While art museums form the majority of the numbers, wide categories are still exhibited in ample numbers. From the museums of history preserving the artifacts from the past to a number of museums of science, sports and music exhibiting the achievements of modern world in their respective fields, wide of range of experiences are available within the city.

While all museums have their specialties that make them impossible to compare with any other, a shortlisting was carried out for the purpose of efficient reconnaissance. Major museums hosting significant collections were selected as the primary candidates. Some museums of smaller size

but hosting items of importance such as national treasures were also included. Locations of the shortlisted museums are illustrated on a map of Tokyo on the following page. While most of the museums are located within the 23 wards of Tokyo metropolitan area, a few of them are situated in the neighboring Kanazawa and Chiba prefectures.

Although all the shortlisted museums had an amazing collection on display, their suitability for the treasure hunt experience design was evaluated on the basis of following consideration:

Type of collection: In order to design an appropriate riddle for any artifact, it is essential to build a thread of connected stories about the artifact. Artifacts with a unique origin and an identifiable history make it easier to frame an appropriate and interesting riddle. For an example, a statue of bodhisattva from *Tokyo National Museum* would be a much more convenient subject for framing a riddle as compared to some ceramic utensil from ancient china at *Nezu Museum* which, despite being an exquisite work of craftsmanship, doesn't have a clearly identifiable artist or age of manufacture. This argument would become clearer in the section on riddle design.

A number of folk craft museums surveyed in this study were found to be in appropriate for treasure hunt experience design in this regard. Exhibitions at *Japanese Folk Crafts Museum*, Shitamachi Museum, *Fukagawa-Edo Museum*, and *Showa Era Lifestyle Museum* were an impressive collection of items or recreations of items from old ages but they could not be used to frame a dynamic treasure hunt experience. On the other hand, *Edo-Tokyo Open Air Architectural Museum* and *Japan Open-air Folk House Museum* exhibited similar collections but with a significant historical background suitable for a treasure hunt design. Exhibitions in art museums with a strong historical theme are also good opportunities for a treasure hunt design. "Heroes from Tales of the Water Margin" exhibition at *Ota Memorial Museum of Art* and "The Grand Sengai Exhibition" at *Idemitsu Museum of Arts* exemplify such exhibitions. Art
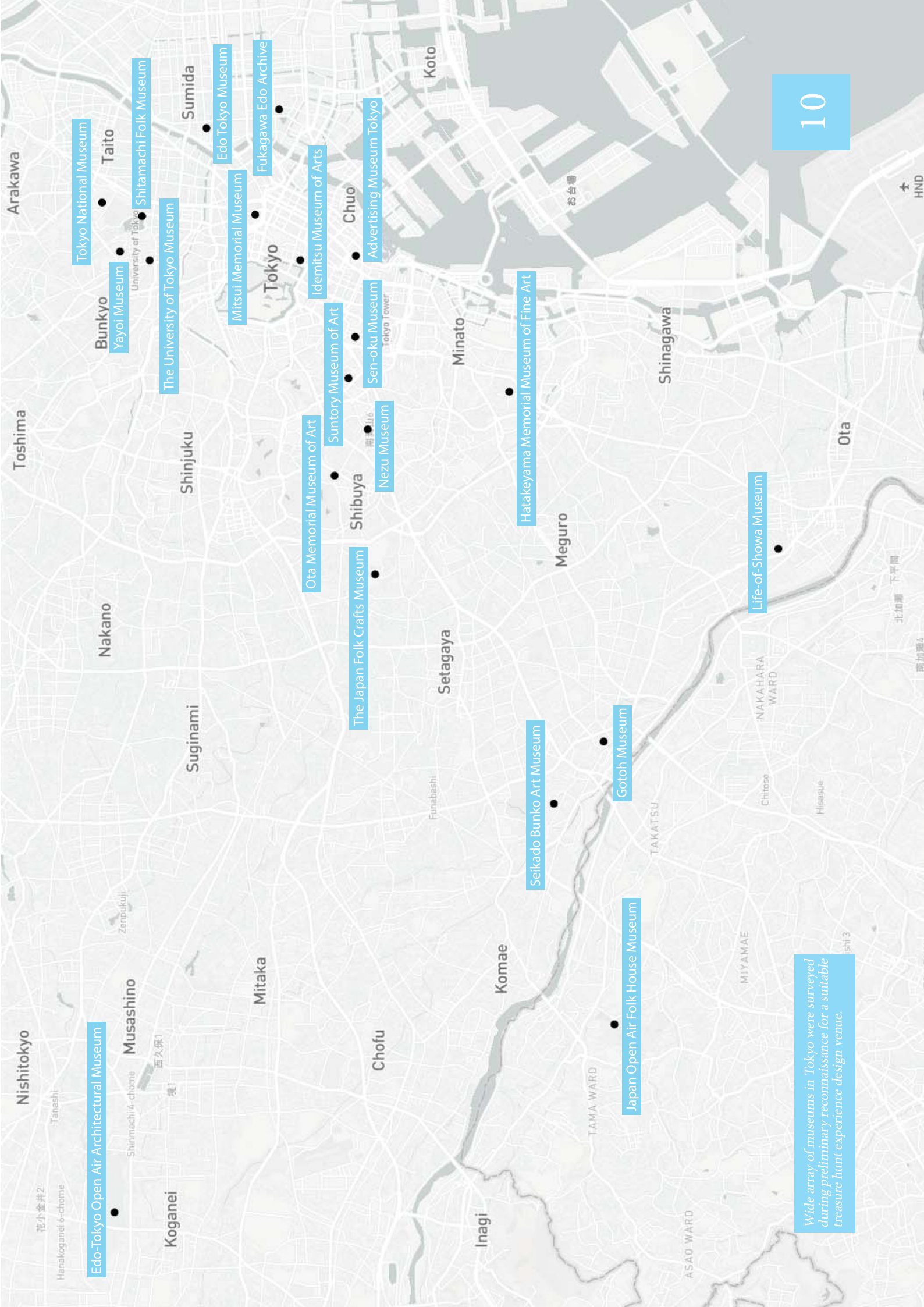
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Tokyo National Museum

Shitamachi Folk Museum

Sumida

Edo Tokyo Museum

Fukagawa Edo Archive

Taito

Koto

Idemitsu Museum of Arts

Advertising Museum Tokyo

Bunkyo

Yayoi Museum

The University of Tokyo Museum

Mitsui Memorial Museum

Tokyo

Chuo

Suntory Museum of Art

Sen-oku Museum

Nezu Museum

Minato

Hatakeyama Memorial Museum of Fine Art

Shinagawa

Toshima

Ota Memorial Museum of Art

Shibuya

Meguro

Ota

Shinjuku

Life-of-Showa Museum

Nakano

The Japan Folk Crafts Museum

Setagaya

Suginami

Seikado Bunko Art Museum

Gotoh Museum

Mitaka

Komae

Musashino

Chofu

Nishitokyo

Edo-Tokyo Open Air Architectural Museum

Japan Open Air Folk House Museum

Koganei

Inagi

*Wide array of museums in Tokyo were surveyed during preliminary reconnaissance for a suitable treasure hunt experience design venue.*

museum exhibitions designed around themes with no associated historical background are ill suited for a treasure hunt experience design. "Introduction to Chinese Ceramics" exhibition at *Nezu Museum*, "The Traditional Performing Arts of Japan" exhibition at *Mitsui Memorial Museum*, and "Seven Daring Years: Odano Naotake and Akita Ranga" exhibition at *Suntory Museum of Art* were deemed inappropriate with this reasoning.

Collection display length: Most museums that own a large collection of artifacts adopt a rotating exhibition policy of displaying only a set items at a time based on some predefined theme. While such an arrangement ensures exhibition of items under some brilliant scheme, it limits the time for which any particular set of artifacts are on display. As a result, it was not possible to carry out the process of reconnaissance, riddle development, and event realization within such short time frame in the case of some museums

Art museums such as *Nezu Museum*, *Mitsui Memorial Museum*, *Idemitsu Museum of Arts*, *Suntory Museum of Art*, *Seikado Bunko Art Museum*, and *Yayoi Museum* had a typical exhibition duration of merely two months and were therefore deemed inappropriate for designing a treasure hunt despite some of them having very appropriate collections by other considerations. Large museums such as *Tokyo National Museum*, *National Museum of Japanese History*, and *Edo-Tokyo Museum* had a permanent exhibition in addition to short term special exhibitions allowing sufficient space of time for treasure hunt design. Museums such as *Edo-Tokyo Open Air Architectural Museum*, Japan Open-air Folk House Museum, Edo-Tokyo Museum, Fukagawa-Edo Museum, Shitamachi Museum, and *Showa Era Lifestyle Museum* were the most suitable in this regard as they exhibit the same collection year round.

Museum regulations: In order to solve the riddle, the participants are required not only to observe the artifact carefully but often also to search on the internet for supporting information or other clues. Therefore, un-

restricted use of mobile phones at the museum site is an indispensable requirement for organizing treasure hunts. Unfortunately, some museums restrict not only shooting photos at the exhibition but outright prohibit the use of mobile phones irrelevant of the purpose citing the fragility of artifacts on display as the reason.

Museums exhibiting private collections such as *Nezu Museum, Idemitsu Museum of Arts, Ota Memorial Museum of Art, Suntory Museum of Art, Seikado Bunko Art Museum,* and *Yayoi Museum* were particularly restrictive in this regard making it difficult to hold a treasure hunt event. Open air museums such as *Edo-Tokyo Open Air Architectural Museum* and *Japan Open-air Folk House Museum* on the other hand offered a restriction free environment suitable for organizing a treasure hunting event.

Relevance of the exhibition: Apart from the above mentioned requirements related to the ease of treasure hunt design, one additional criteria was adopted in the context of this study. Exhibitions not related to Japan or Japanese culture were excluded. "Introduction to Chinese Ceramics" exhibition at *Nezu Museum* and "Heroes from Tales of the Water Margin" exhibition at *Ota Memorial Museum of Art* were deemed unsuitable for this reason.

## 2.2 Stage II: Riddle design

Riddles form the core of a treasure hunt experience. Suitably designed riddles are the key to an enriching and interesting treasure hunt. Riddles are posed in the form a simple clue or fact that is supposed to be connected in some way to one of the artifacts. It is the job of the participant to explore in depth about the provided clue or the artifacts in the collection and identify the connection in order to solve the riddles. The task of riddle design may be considered in two stages: collecting relevant background information on the artifact, and stringing the relevant
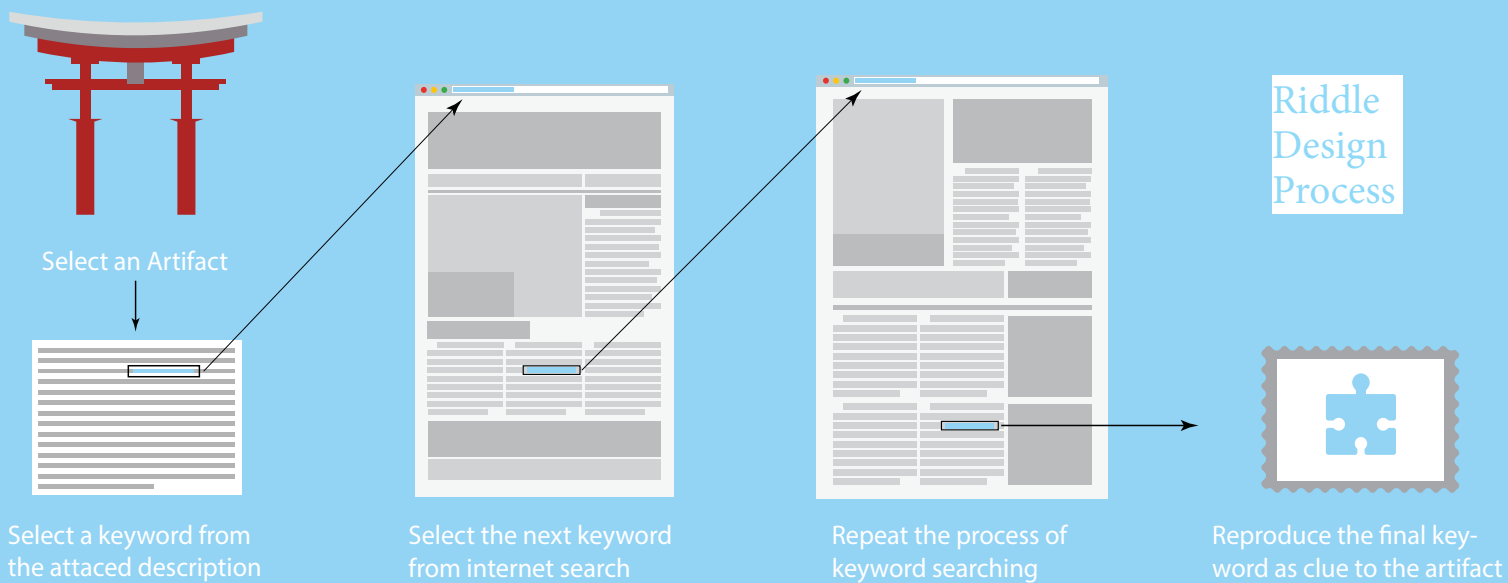
background stories to form the riddle.

Information collection: Most of the modern museum artifacts are furnished with a short description placed right next to the item on display. This description forms the basis for collecting detailed background information. Museum shop's book collection facilitated convenient reference of this primary description for most of the museums. Further, various online databases hosted by the museums or other national organizations also made available the basic description of certain artifacts.

Basic description thus acquired is surveyed for characteristic keywords specific to the artifact and having potential to form an interesting connection. Further information on these keywords is acquired through more generally available sources such as web encyclopedias.



*Museum description plates, Museum collection books, Museum web databases and Web encyclopedias were the primary sources of information used for designing the riddles.*

Select an Artifact

Select a keyword from
the attaced description

Select the next keyword
from internet search

Repeat the process of
keyword searching

Reproduce the final key-
word as clue to the artifact

Ease of access of the information sources referenced in the riddle de-
sign also makes it easy for the participant to search for relevant clues.
Description boards placed at the museum site and the web resources
readily available from any smartphone are thus the only tools needed for
participating in the treasure hunt experience.

Stringing stories: Final task in the design of riddles is the assembly of
collected information regarding each artifact into an appropriate thread
of connected ideas starting from an apparently obscure clue and ending
in the answer that is one of the artifacts. Difficulty of the riddle is direct-
ly related to the number of connected stories in the riddle. A number
of connected stories that render the clue seem unrelated to any of the
artifacts in the museum make a complicated and tough to solve riddle.
On the other hand, a rather easy to solve riddles can be designed by
stringing together fewer stories. The figure on the top of the page com-
prehensively illustrates this riddle design process.

This process of riddle design may be illustrated though a simple exam-
ple. Consider the scroll painting called "Twelve Devas" held by *Kyo-
to National Museum* which is also designated as a National Treasure.
The painting depicts the twelve gods of esoteric Buddhism. An internet
search about the "twelve gods of Buddhism" reveals that 10 of these gods

represent one of the directions and the other two represent the sun and the moon. Taking this as the keyword, an internet search for "sun and moon in Buddhism" reveals that unification of sun and moon is one of the seventeen important tantras in Tibetan Buddhism. Selecting this as the storyline for the riddle, the number "seventeen" is declared as a clue for the painting of Twelve Devas. In solving this riddle, the participants read through a number of topics and not just the simple description of the artifact provided by the museum.

## 2.3 Stage III: Event realization

Final stage in the design of treasure hunt experience is the organization of the event at a museum site. In order to effectively achieve the goals of treasure hunt experience design, proper organization and delivery of the final event is crucial. Followings aspects are considered in this regard:

Selection of the riddles: Depending on the size of the museum and the number of suitable artifacts it houses, a number of riddles may be developed. However, owing to the restricted length of time available for the conduction of the event at any given site, only a selected number of riddles can be implemented at a given event. Selection of the suitable riddles for a museum was done to maintain a balance of difficulty and variety in target artifacts. If all the riddles are too difficult or too easy, the participants might quickly loose interest in the hunt, thus bringing to an end any hopes of promoting self-learning through the museum. Uniform spread of the riddles to various categories of the museum artifacts is also necessary in order ensure sufficient coverage of all topics under the objective  of promoting self-learning through the treasure hunt experience design. Selecting too many riddles from a narrow range of categories would also render the riddles easier to solve.

Event formation: Selected riddles can be finally put together into a treasure hunt event at the museum site. While many different event formats

may be possible, following recommendations are given in the context of the current study. Clues for each riddle are expressed in the form of pictures. Posing riddles through pictures instead of a text added a layer of difficulty to the question while also making it equally easier for participants of all linguistic background to grasp the riddle. Further, a web based means of communication was adopted for send riddles and other information to the participants during the event. This arrangement ensures smooth delivery of picture based riddles while requiring minimum additional tools. Finally, an arrangement of furnishing additional hints for the original riddles was also made whereby participants could request hints for the questions they felt to be too difficult.

# CONCLUSION

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In accordance with the design outline, a treasure hunt event was organized at one of the museum venues to examine participant response to such an experience design. This chapter details the event organization and discusses the observed response and participant feedback. In conclusion, further improvements to the proposed design are discussed.

## 3.1 Event description

A treasure hunt event was designed for *Edo-Tokyo Open-air Architecture Museum*. This museum was found to be one of the most appropriate venues in the preliminary reconnaissance stage. Year round permanent exhibition, no restriction on photography or use of mobile phones, and the present of a relevant collection of artifacts satisfy all the necessary requirements for a treasure hunt event design. The museum houses restored buildings from Showa to Edo periods and gives an insight to the life in those times. Unlike other open air museums (like *Japan Open-air Folk House Museum*) exhibiting buildings from the past and folk craft museums (like *Edo-Tokyo Museum*) exhibiting items or replicas of from the past, this museum exhibits buildings that each have a significant historical background related to important people or events in Edo and Showa periods. Hence, a treasure hunt could be easily designed for this museum. Following thorough background study and following

the process of riddle design as expressed in the previous chapter, a set of riddles were developed. The list of riddles employed in this event can be found in the appendix.

Volunteers were invited for participation in a test run of the thus designed treasure hunt experience. A total of 7 interested students were thus gathered as volunteers mainly from through participation calls in University circles and foreign students' community in The University of Tokyo. For their participation, a compensation of 1000 yen for transport and Museum entry fee was arranged. A prize of 5000 yen for treasure hunt contest was also set up in order to ensure enthusiastic participation.

The event was held over 3 hours on a Saturday morning. First 30 minutes were designed to be free time over which participants could orient themselves with the large museum premises and get an overview of the kind of buildings on display in various parts of the museum. At the end of the free time, all the riddles were sent out over a messaging application and answers were accepted over the same application. Hints were provided to the participants upon request. Finally, the participant with most correct answers within shortest time at the end of stipulated 3 hours was declared the winner and rewarded with the prize.

## 3.2 Response discussion

At the end of the event all the participants were interviewed on their opinion about the event. All the participants were on their first visit to the museum. Participant response was generally positive and they described the event as quite interesting. They also reported that the challenge to find solution to a riddle was an immense motivation to thoroughly browse through the entire museum.

While the response of the participants about this experience was en-

couragingly positive, they did not seem to realize the educational objectives behind this event. While searching for the solution to riddles, the participants also gained knowledge on various topics not directly related to the museum which would not have been possible in a regular museum visit. Furthermore, they achieved this with the strength of their own motivation to compete for the prize and solve the given challenge. In this process they also learnt the art of self-learning through freely available sources of information online.

## 3.3 Future recommendations

Although an event could be designed and evaluated through a test run in this study, the findings are subject to the limitations that were encountered during reconnaissance and design phases. Taking into account these limitations, following recommendations are given for future studies:

1. While the volunteer response was positive, the small number of volunteers from a very narrow background severely limits the utility of the results. More volunteers form a wide range of backgrounds would better validate the applicability of the treasure hunt experience design.
2. A number of museums court restrictions unsuitable for a treasure hunt design experience. Negotiation with the museum authorities to compromise these restrictions specifically for holding a treasure hunt might be considered in order to expand the scope of the study.
3. Treasure hunt design evaluated in this study is limited in scope to only certain types of museums and artifacts. Other types of museums not targeted by this study also attract vast numbers of visitors every week. The riddle design may be modified to suit other museums in order to design a holistic treasure hunt experience.

# Appendix

## A.1 List of riddles

All the riddles developed for the treasure hunt event at *Edo-Tokyo Open-air Architecture Museum* are listed here for reference. Included in the description of each riddle is the story line leading to the clue from the artifact description.

### Riddle 1

Artifact Name: Jisho-in Mausoleum

Selected keyword from attached description: A *mausoleum* dedicated to the wife of shogun Iemitsu Tokugawa

Next keyword: One of the most popular mausoleums in the world dedicated to a queen is *Taj Mahal* in India.

Provided clue: Taj Mahal

### Riddle 2

Artifact Name: Kokaden Palace

Selected keyword from attached description: This building built as temporary ceremony hall for the *2600th anniversary of the founding of Japan* in year 1940.

Next keyword: *1940 Summer Olympic Games* were planned to be organized in Tokyo as a commemoration for the 2600th anniversary of the founding of Japan.

### Riddle 3
Artifact Name: Kodakara Bathhouse

Selected keyword from attached description: *Seven gods of good luck* are carved above the entrance of the bathhouse

Next keyword: The seven gods of good luck are *Ebisu, Daikokuten, Bishamonten, Benzaiten, Fukurokuju, Jurōjin, Hotei, Kichijōten.*

Next keyword: All this deities have their origin in ancient Hinduism or Chinese Buddhism except for *Ebisu* who has a Japanese ancestry.

Next keyword: *Ebisu station* in Shibuya-ku, Tokyo is named after Ebisu

Provided clue: Ebisu station

### Riddle 4
Artifact Name: House of Koide Family

Selected keyword from attached description: The house is designed in a style that combines the *European design* of those days and traditional Japanese design.

Next keyword: Of all the European style buildings in the museum, only this building had an *accessible loft*.

Provided clue: An image of loft from this building.

### Riddle 5
Artifact Name: Farmhouse of Tenmyo Family

Selected keyword from attached description: The building was home to the *Tenmyo family*.

Next keyword: The Tenmyo family moved to Edo area from their original residence in *Tochigi* during Kamakura period.

Next keyword: The Tenmyo family were engaged in iron casting in Tochigi and produced famous ironworks trademarked as *Tenmyo casting*.

Provided clue: An iron kettle of Tenmyo casting

### Riddle 6

Artifact Name: House of Georg de Lalande

Selected keyword from attached description: The building was home to a *George de Lalande*, a famous german architect living in Japan since early 1900s.

Next keyword: de Lalande designed many western style buildings in Japan during those times including the now famous *Thomas House* in Kobe.

Provided clue: Thomas House in Kitano, Kobe.
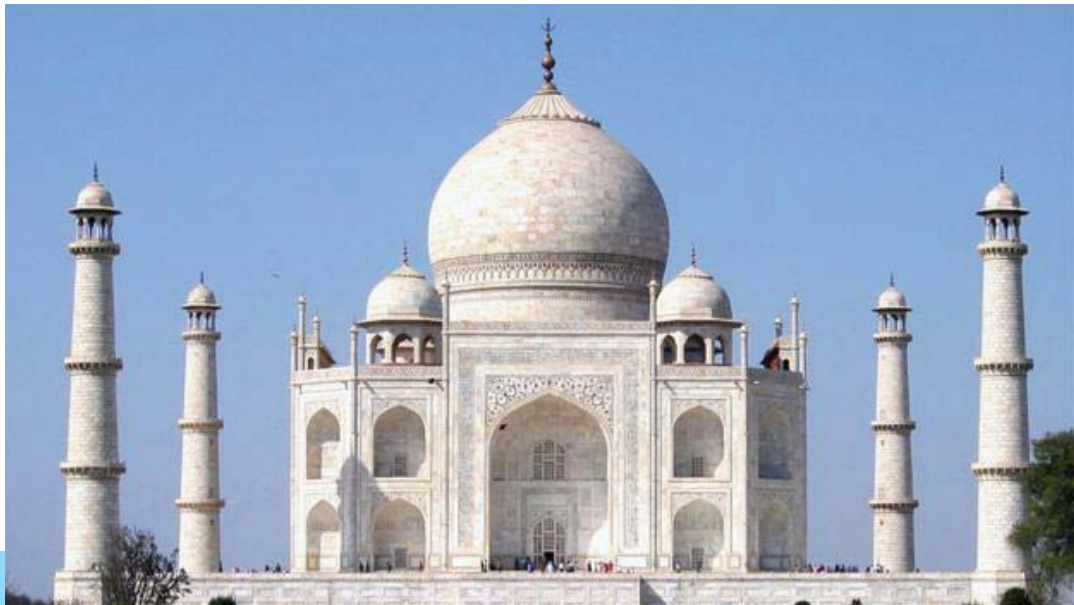
## Riddle 7

Artifact Name: House of Kunio Mayekawa

Selected keyword from attached description: This building was designed by *Kunio Maekawa*, a famous architect during post-war times in Japan.

Next keyword: Kunio Maekawa worked in France under the apprenticeship of the famous French architect, *Le Corbusier.*

Next keyword: One of the most popular and characteristic work of Le Corbusier is the *Villa Savoye in Poissy.*

Provided clue: Villa Savoye in Poissy.

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