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*ad*

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# TEMPLUM

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AD TEMPLUM

**Augmented Reality and Mobile Experience**

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# *purpose and specifications*



MUSEO BAGATTI VALSECCHI

Creating a mobile experience for the **Bagatti Valsecchi museum**.

The target is people between **30 and 40 years old**.

The experience has to include phisycal and a virtual components and has to be able to attract the target to visit the museum.

# *analysis*

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TARGET  
TIME AND LOCATION  
CONTENTS  
TYPE OF EXPERIENCE  
SOURCES OF INSPIRATION

## ANALYSIS

# *target*

The target audience is people between 30 and 40 years old who for example:

read thriller and crime novels like **Dan Brown** and **Agatha Christie**

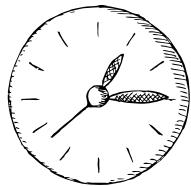
watch crime tv show like **Sherlock** and **Twin Peaks**

attend places and events like **Escape Rooms** and **murder mystery dinners**

play graphic adventures like **Thimbleweed Park**

## ANALYSIS

# *time and location*



The experience takes place during the museum **usual schedule**, it can be played at anytime.

The average playing time is of an **hour**.

The experience takes place only inside the museum.

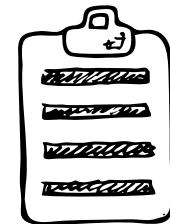


## ANALYSIS

# *contents*

**The experience gets the user to interact with:**

- the museum content, the objects present in its collection
- the 'container', the museum itself
- some **external content specially created** (printed material supporting the experince)
- some virtual content in the form of **AR overlays**



The experience is adressed to **amateur users**, that dont't have much or any previous knowledge about the museum.

The app content is exclusively created by the app makers,  
**User Generate Content is not present.**

## ANALYSIS

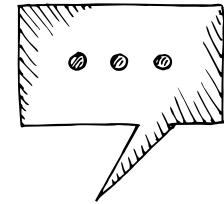
# *social interaction*

**The experience can be enjoyed both by a single person as well as a group of people.** If more than one person is playing, one uses the app while the other use the printed materials. If it's just one person, all media can be used individually.

The experience encourages **interaction models of cooperation** between people to solve the game.

Some tasks require to use the smartphone and the printed materials simultaneously, **stimulating group cooperation**.

The experience can be placed **on the 5th social engagement level of the Simon Scale**, although it doesn't promote interaction between strangers. **The users interaction doesn't happen through the mobile technology.**



## ANALYSIS

# *type of experience*

The experience is a **treasure hunt** set in the museum.

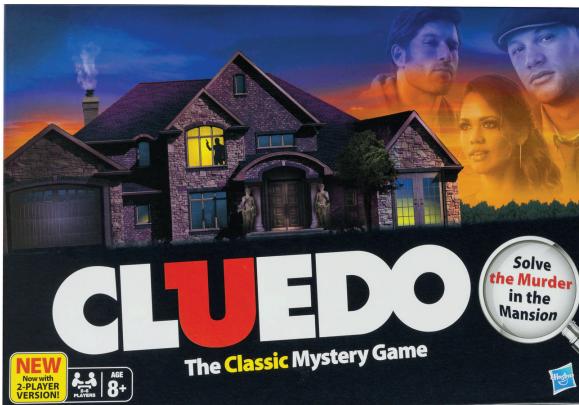
**The learning model is immersive.**

The experience involves the users in a story that allows them to explore the museum and get to know the collection.

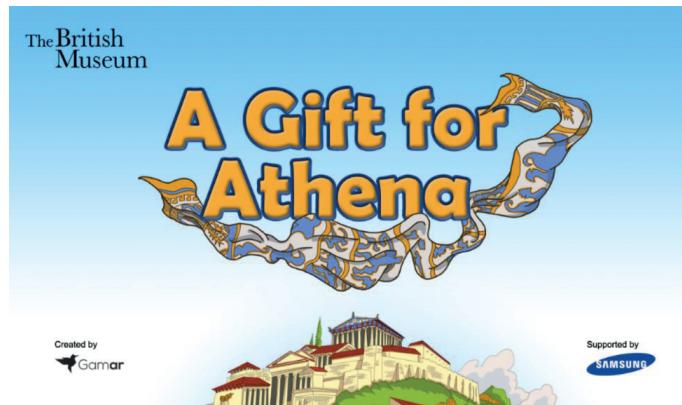


## ANALYSIS

# *sources of inspiration*



CLUEDO  
mystery house  
mood  
map



A gift for Athena - The British Museum  
experience structure  
tasks  
content depth



Crime Scene Live - National Gallery  
experience structure  
plot richness  
narrative background

# *experience elements*

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GOAL

NARRATIVE BACKGROUND

SYNOPSIS AND CHARACTER

MAIN PATH

SECONDARY PATH

## EXPERIENCE ELEMENTS

# *goal*



**Leopoldo Martini** is a friend of the museum who asks for help from the visitors to solve the mystery of a **hidden path in the house** thanks to some notes found by his great grandfather Bartolomeo and to the possibilities offered by mobile technology.  
The visitors can communicate with Leopoldo through an app that features a private chat with him.

## EXPERIENCE ELEMENTS

# *narrative background*

The **Carbonari** was an informal network of secret revolutionary societies born in Naples and then spread in all Italy, at the time still divided, from about 1800 to 1831. The network took part in important events in the process of **Italian unification** but dissolved only around half of the 19th century.

It's actually believed that it has continued to exist until the late 19th century. The secret organization had a strong impact on the Italian unification, to which the **Bagatti Valsecchi brothers** were very invested.

EXPERIENCE ELEMENTS

# *synopsis*

Hundred years ago...

It's seems something it's hidden in the historic house museum Bagatti Valsecchi... a **mysterious path** that leads to a treasure.

More the hundred years ago a restorer, secretly a member of the Carbonari, hid in the house one of the most important secret of the entire organization now gone: the entrance to the *inner temple*.

## EXPERIENCE ELEMENTS

# *synopsis*

*Today*

To the present day, more than a century after the restorer had hidden the path in the house, **one of his descendants** finds some notes on a book that contains information about the objects in the house.

Suspicious about the peculiarity of some symbols **he decides to ask for help to whomever visits the museum to retrace the secret path hidden in the house**, providing a map and another sheet of paper with a mysterious star with sketched symbols.

Subsequently the visitor will get to know the story of the hidden inner temple, and will have to **retrace the path** that leads to it to collect the hidden treasures. Along the way the restorer descendant will keep in touch through a chat with the visitors, helping them to explore the house.

EXPERIENCE ELEMENTS

# *characters*



## *Bartolomeo Martini*

Born on the 14th of January 1866.

Job: **Restorer**, secretly member of the Carbonari.

Selfless, generous, defender of the weak, he has worked in the years after Italy's unification to strengthen the newborn country cultural cohesion. Cultured and erudite, he made his artistic talents a profession, to the point of getting to know the **Bagatti Valsecchi brothers** who contacted him to do some work in the house.

## EXPERIENCE ELEMENTS

# *characters*



*Lepoldo Martini*

Born on the 23rd of October 1958.

Friend of the Bagatti Valsecchi Museum, he knows about **his great grandfather Bartolomeo** working in the house.

One day, while casually exploring his great grandfather's library he finds some mysterious notes taken on a book about the house objects.

Being stubborn, not particularly clever and hostile to technology, **Lepoldo is however is cultured and very interested to the house's history** but he hasn't the opportunity to visit to try and understand something about mystery. **It leaves the book he has found and other resources found in the library to the people in charge of the museum, hoping that the visitors can solve the mystery.**

## FASE CREATIVA

# *characters*

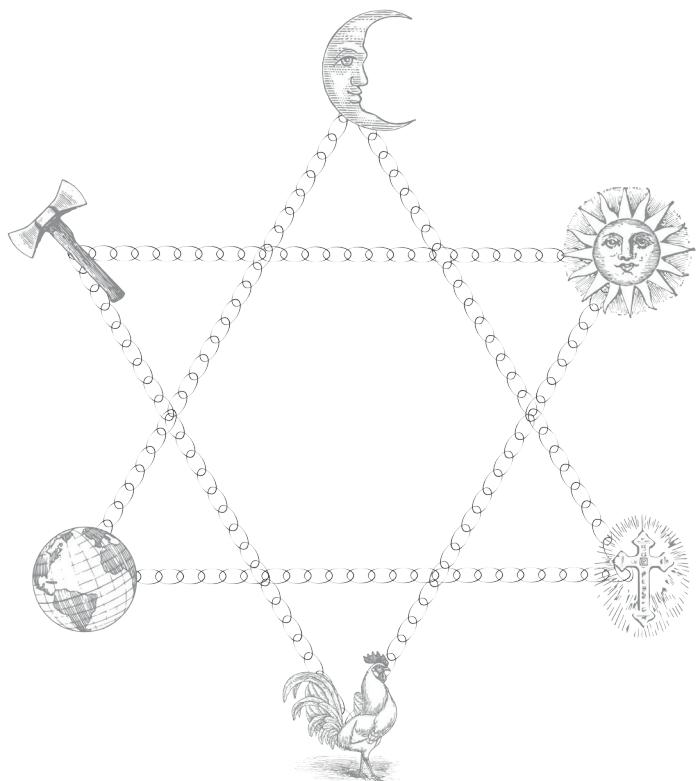
*visitors*

The visitors, once they get to the Bagatti Valsecchi museum, whether they're a group or just one, **are given the materials collected by Leopoldo Martini and are invited to talk with him through and app that allows to chat with him.**

Lepoldo asks for the house visitor's help who thanks to his notes, the abilities of their mobile devices **can solve the mistery of the secret hidden path.**

## EXPERIENCE ELEMENTS

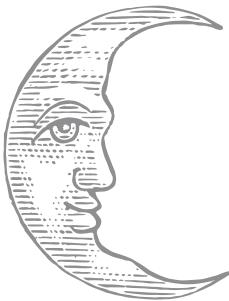
# *main path*



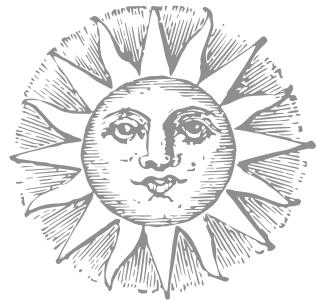
The main path of the experience is treasure-hunt among the Bagatti Valsecchi museum's rooms. **The visitor is called to found the six carbonari seals hidden in as many objects of the house.** In order to do so he's helped by a booklet and the chat whithin the app with Leopoldo. When each seal is found it appears clearly on a Carbonari star, present in the app. Once all the seals have been found, at the center of the star appears another symbol, which is phisically in the house. By getting to the location of this symbol and scanning it, the mission is concluded and the ending of the story is revealed.

EXPERIENCE ELEMENTS

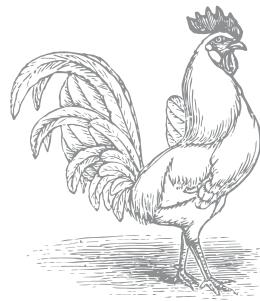
# *carbonari seals*



moon



sun



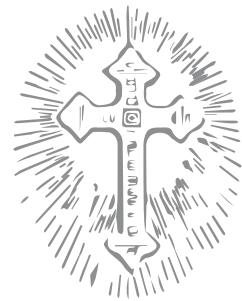
rooster



globe



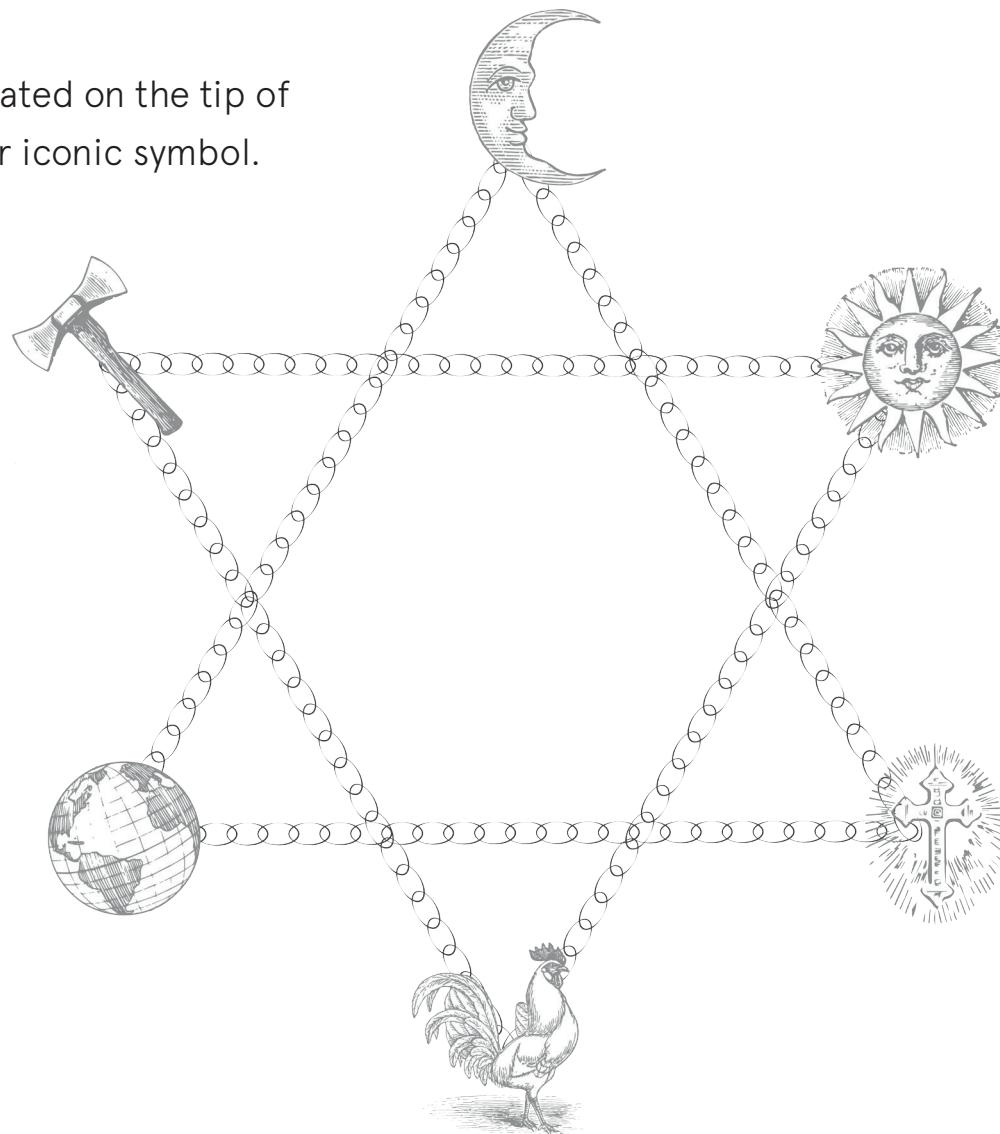
axe



cross

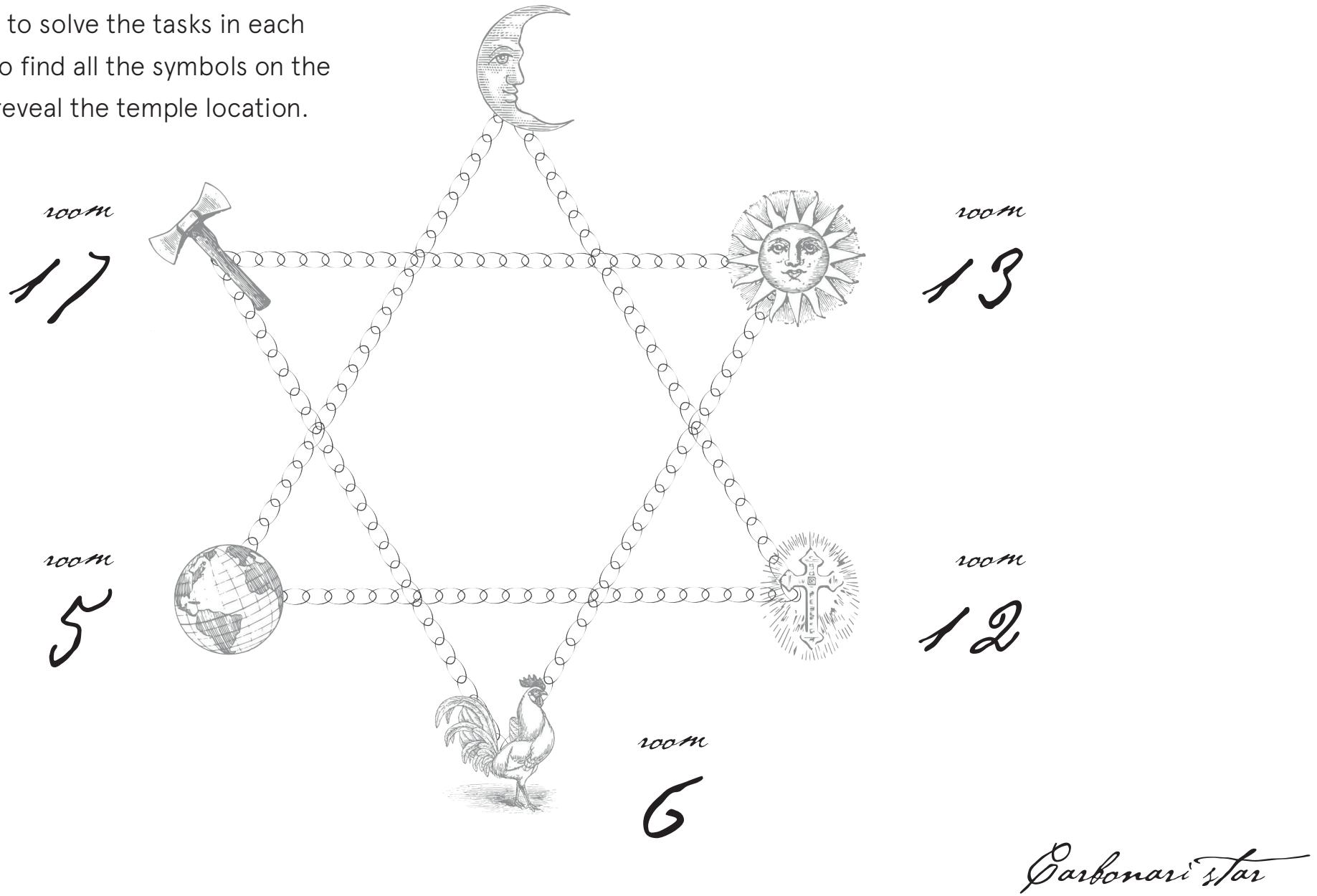
The six carbonari seals will get the player to discover the location of the *inner temple*, hidden in the house.

The Carbonari seals are located on the tip of the five-pointed stars, their iconic symbol.



*Carbonari star*

The visitors has to solve the tasks in each room in order to find all the symbols on the star which will reveal the temple location.



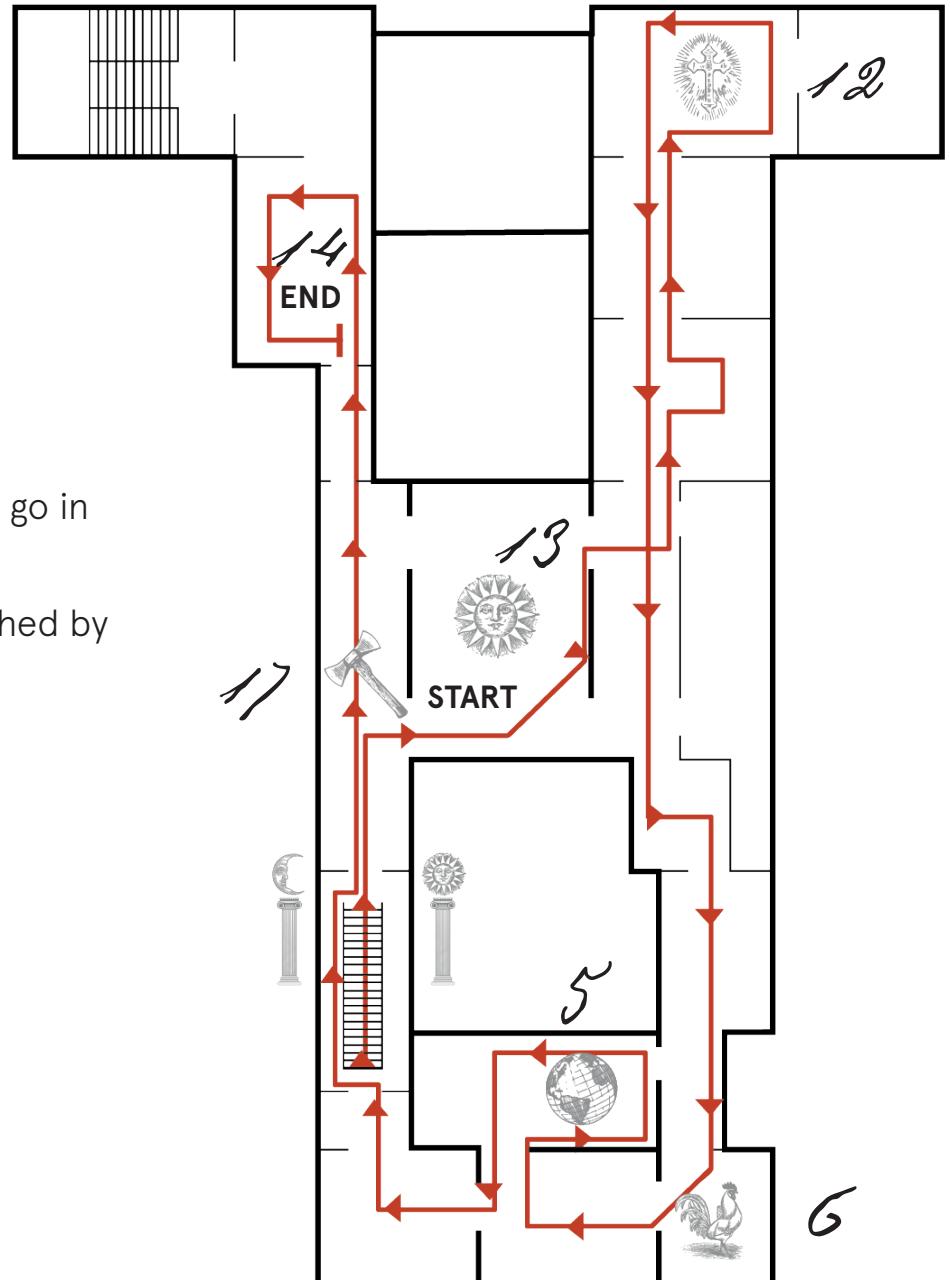
## EXPERIENCE ELEMENTS

# *the path*

**The path begins in the room 13, the hall.**

At the beginning of the experience Leopoldo invites the player to go in that room to begin the game.

**The path ends in a particular room (room 14) which can be reached by solving all the tasks and finding all the Carbonari seals.**



## EXPERIENCE ELEMENTS

### *main path*



The narrative gets the players to believe that at the end of the path they would find a material treasure. **What is found instead is a simple piece of coal.**

This choice has been made to convey a message that would link the history of the Bagatti brothers to the one of the Carbonari: a story about the **humbleness and hard work that brought the brothers to obtain their noble title.** The coal is nothing more than a symbol hidden in the house by Bartolomeo to honor the brother's willingness to not forget their working past.

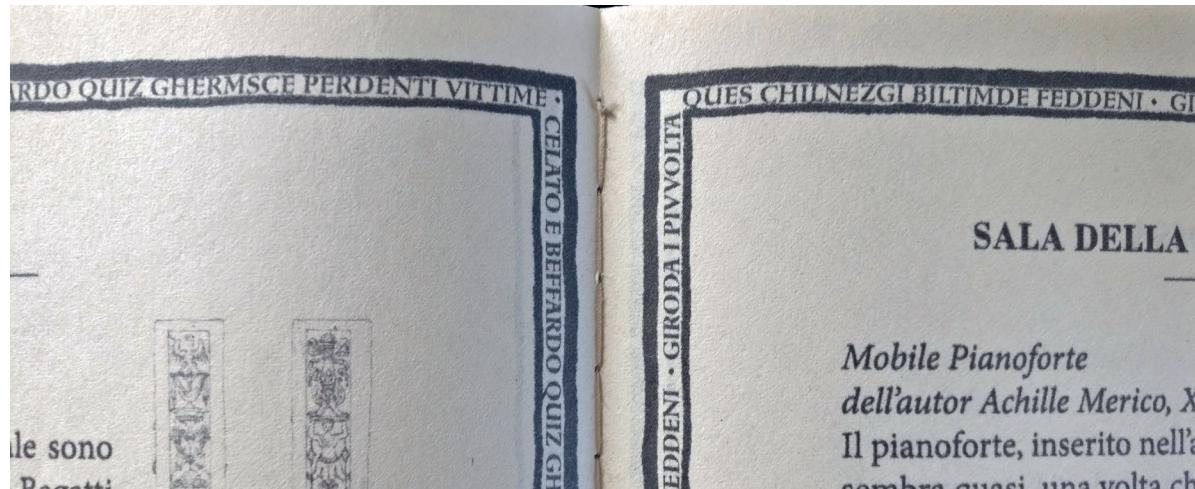
## EXPERIENCE ELEMENTS

# *secondary path*



R'uano unera balci orro zgolbo mir zorami uma zcuolta.

*L'uomo umile porge alla scarpa nel salone uno sguardo.  
(The humble man looks at the shoe in the hall.)*

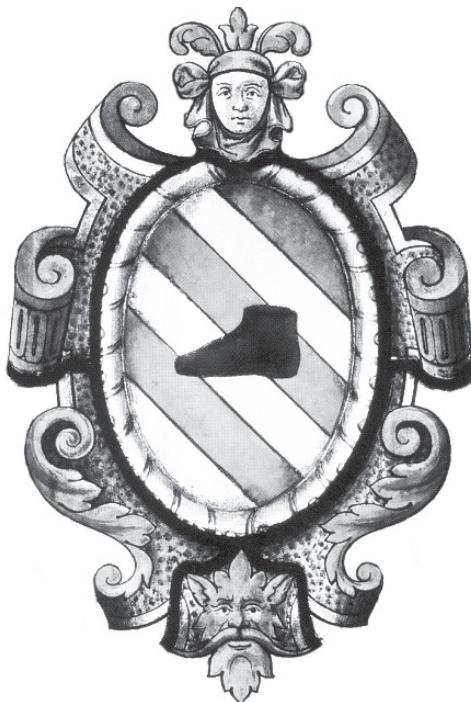


The visitor has to obtain the **cipher** from a page in the booklet.

In the right page corniche there's a pangram in italian encrypted in the Carbonari code. Once the cipher has been found, the visitor, using the booklet, has to find the objects in the house that he needs **to scan** in order to find pieces of the sentence to decrypt.

EXPERIENCE ELEMENTS

# *secondary path*



**Old coat of arms of the Bagatti Valsecchi family** that displays a shoes that symbolize the profession of the **"bagatt"**, cobbler in Milanese, a humble work that the bothers didn't want to forget.

**It's placed on a glass window in the house Main Hall.**

**It's discovered at the end of the secondary path** and is meant to strengthen the theme of the Bagatti Valsecchi brothers' humbleness which is revelead at the end of the main path.

# *experience aesthetics*

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GOAL

TYPEFACES

COLOR PALETTE

GRAPHIC ELEMENTS

EXPERIENCE AESTHETICS

# *goal*

To build a **modern aestetichs** with references to the artistic period of the location.

Able to **combine a more modern look** for the app to the **purposely old-fashioned** booklet.

Easily **adaptable to the historic house** museum but at the same time **promptly distinguishable** thanks to its elements' strong contrasts.

## EXPERIENCE AESTHETICS

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# *typefaces*

### **Bodoni**

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n o p q r s t u v w x y z  
1 2 3 4 5 6 7 8 9 0

---

### *Cezanne*

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
a b c d e f g h i j k l m n o p q r s t u v w x y z  
1 2 3 4 5 6 7 8 9 0

---

### **Minion Pro**

A B C D E F G H I J K L M N O P Q R S T U V X W Y Z  
a b c d e f g h i j k l m n o p q r s t u v w x y z  
1 2 3 4 5 6 7 8 9 0

---

**Bodoni** was used for the booklet and the app main titles.

It was chosen for its classical nature and its link to the fashion world to which the museum is connected thanks to his location in the "Quadrilatero della Moda."

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**Cezanne** was used to simulate Bartolomeo's handwritten notes in the booklet. Despite not being actually handwritten, it gives a rather realistic effect.

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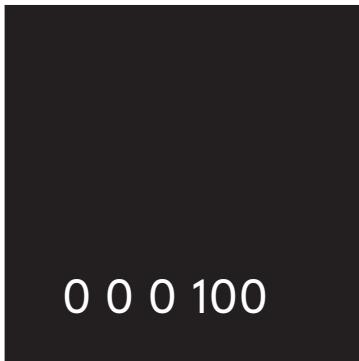
**Minion Pro** was used for the booklet texts for its being easy to read and being timeless.

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Due to technical constraints it hasn't been possible to choose specific font for all the texts in the app.

EXPERIENCE AESTHETICS

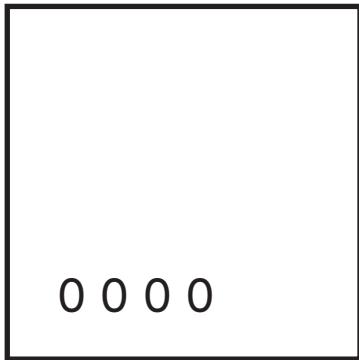
# *color palette*



0 0 0 100

**Contrast and harmony** with the historic house museum's general aesthetics, which is very colorful and rich.

Ensures **recognisability**.



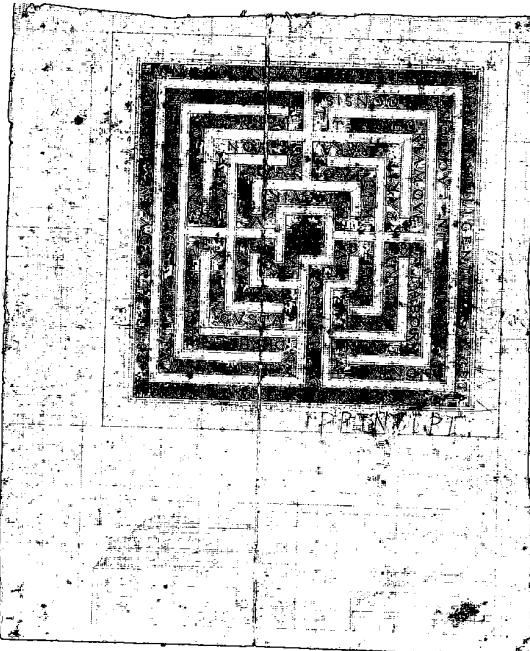
0 0 0 0

It's linked to coal and the Carbonari.

**Adaptable to the printed materials.**

Usable with **illustrations** in the style of the time of the house.

# graphic elements



Fratelli d'Italia  
L'Italia s'è desta,  
Dell'elmo di Scipio  
S'è cinta la testa.  
Dov'è la Vittoria  
Le porga la chioma,  
Ché schiava di Roma  
Iddio la creò.

Stringiamoci a coorte,  
siam pronti alla morte.  
Siam pronti alla morte,  
l'Italia chiamò.

3.

Noi siamo da secoli  
Calpesti, derisi,  
Perché non siam popolo,  
Perché siam divisi.  
Raccolgaci un'unica  
Bandiera, una speme

Dall'Alpi a Sicilia  
Dovunque è Legnano,  
Ogn'uom di Ferruccio  
Ha il cuore, ha la mano,  
I bimbi d'Italia  
Si chiaman Balilla,  
Il suon d'ogni squilla  
I Vespri suonò.

Stringiamoci a coorte,  
siam pronti alla morte,  
Siam pronti alla morte,  
l'Italia chiamò.

Son giunchi che piegano  
Le spade vendute:  
Già l'Aquila d'Austria  
Le penne ha perdute.  
Il sangue d'Italia,  
Il sangue Polacco,

*l'intero testo interessa molto i fratelli,  
credere molto nell'Unità d'Italia ed hanno  
collezionato diverse armi storiche del nostro paese.  
Lo ho restaurato una particolare scure o ascia, che  
di solito, che è stata posizionata nella casa.*

4.



Sketch  
illustrations.  
Pen and pencil.

Black and white.  
Antique style.  
Aged paper.

# *app development*

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DEVELOPMENT SOFTWARE

WIREFRAME

APP SECTIONS

APP ICON

APP DEVELOPMENT

# *development software*

**VEDILS** 1.4

**Vedils** is a visual tool based on the MIT App Inventor 2, developed by the SPI&FM research group at University of Cadiz.



In addition to the MIT App Inventor main options, it allows the development of Augmented Reality resources, integrating **Qualcomm Vuforia**.

# *development software*

## In-app Augmented Reality

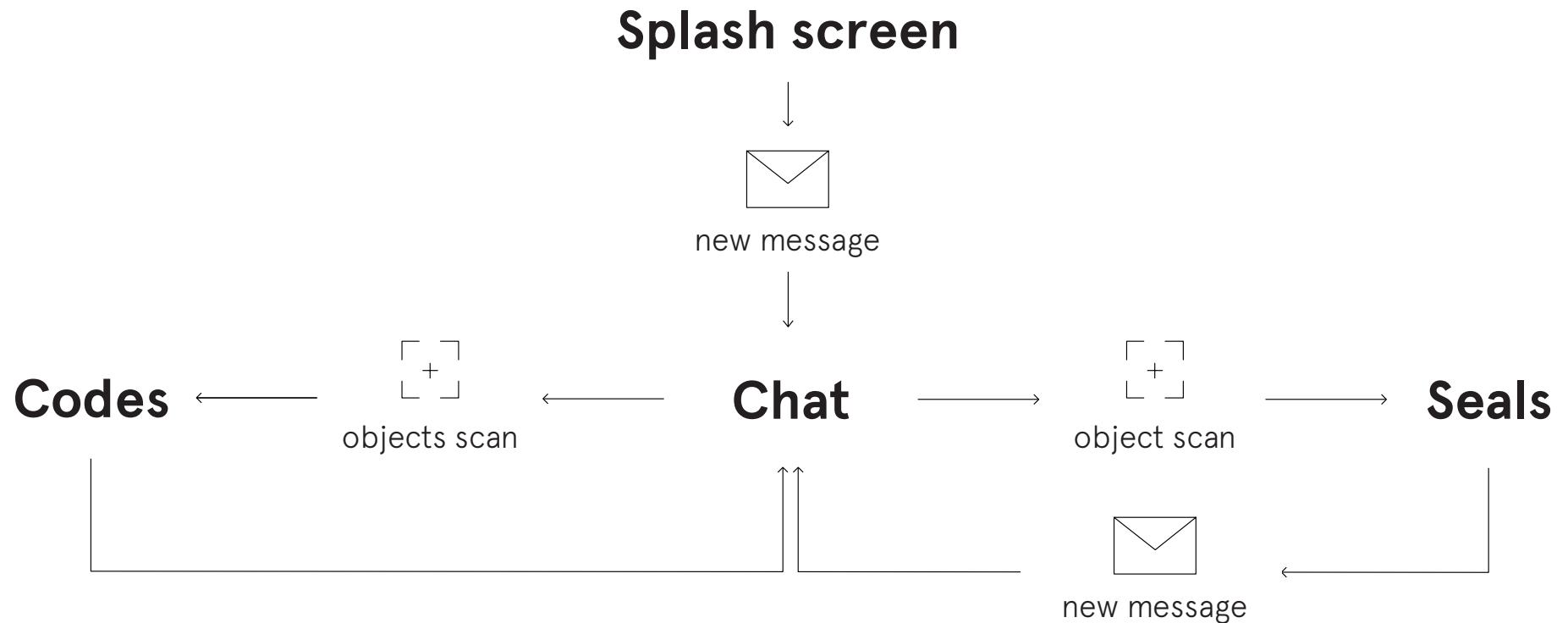
Using Vedils has given us the opportunity to integrate AR mechanics directly in the app prototype without having to resort to more intricate solutions for the user.

The alternative would have been to use two different applications, like MIT and Aurasma or Telegram and BlippAR, forcing the user to download two apps on his phone and having to constantly switch from an app to another.

**With Vedils Augmented Reality in Vuforia is available directly in the Ad Templum app.**

SVILUPPO APP

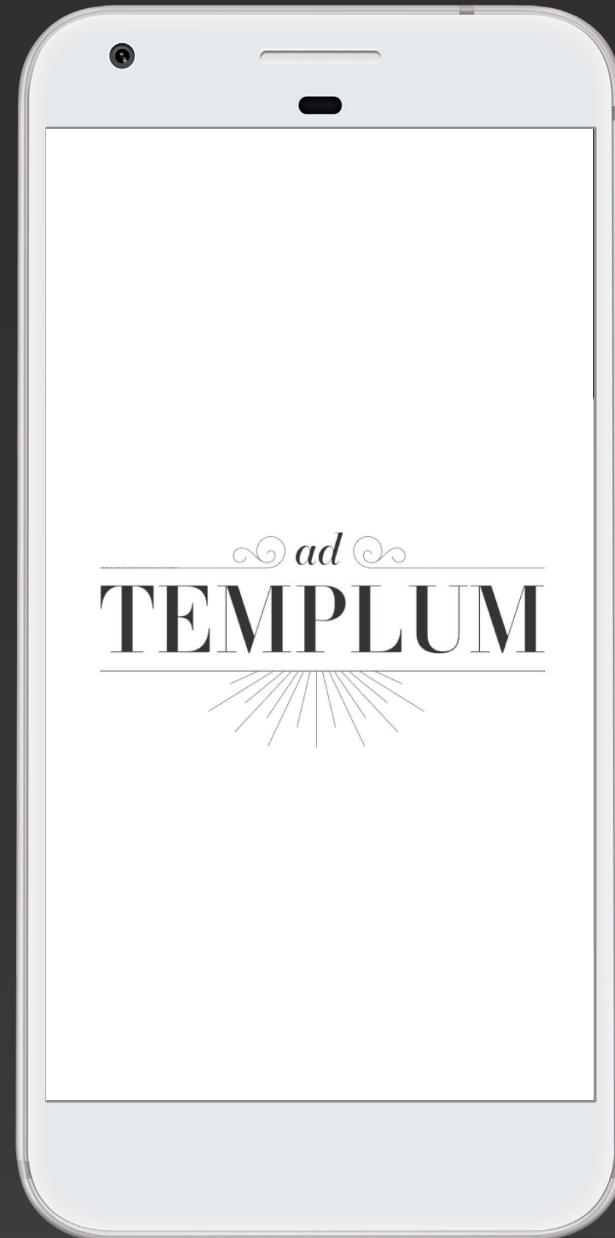
# *flowchart*



# *app sections*

## Splash Screen

Screen where the app logo is displayed.

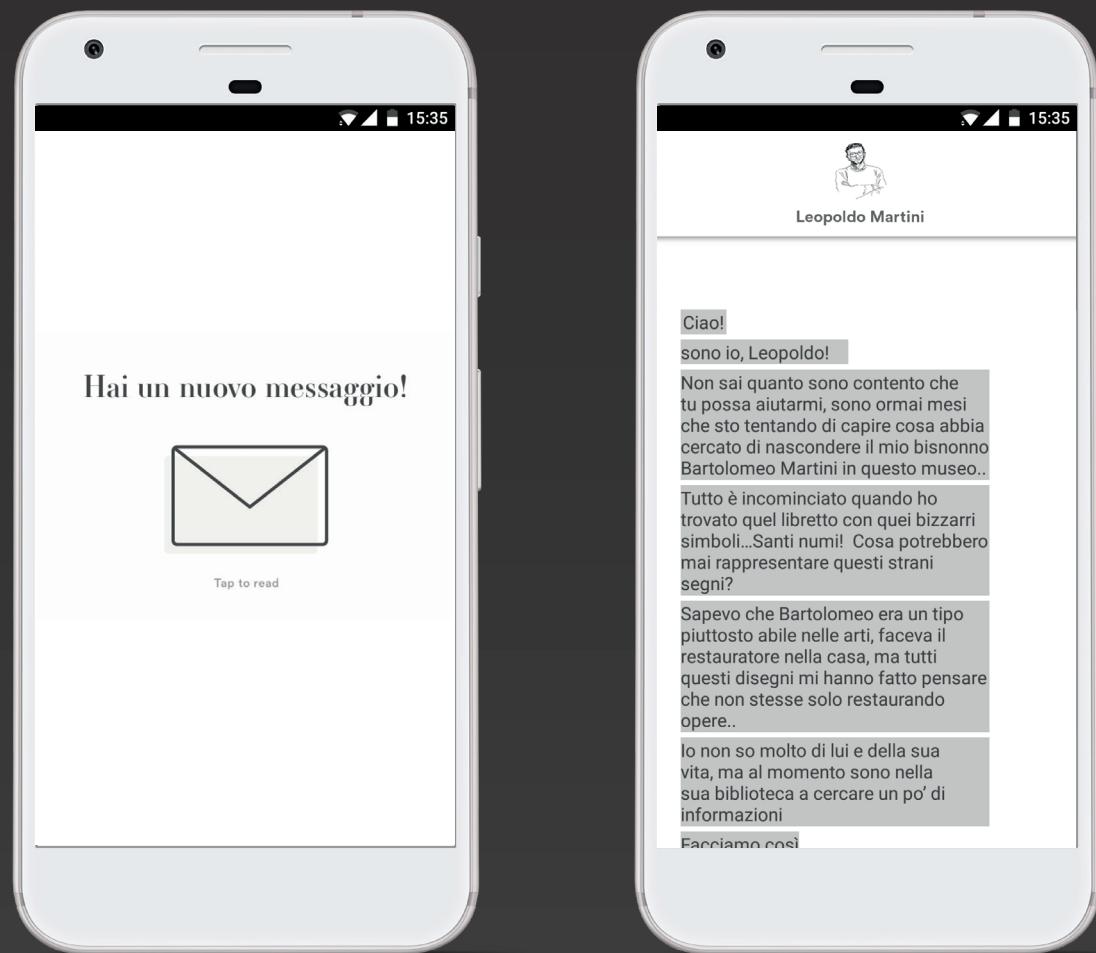


# *app sections*

## Chat with Leopoldo

The app main section, where messages from Leopoldo, that allow to continue the search for the path in the house, are displayed.

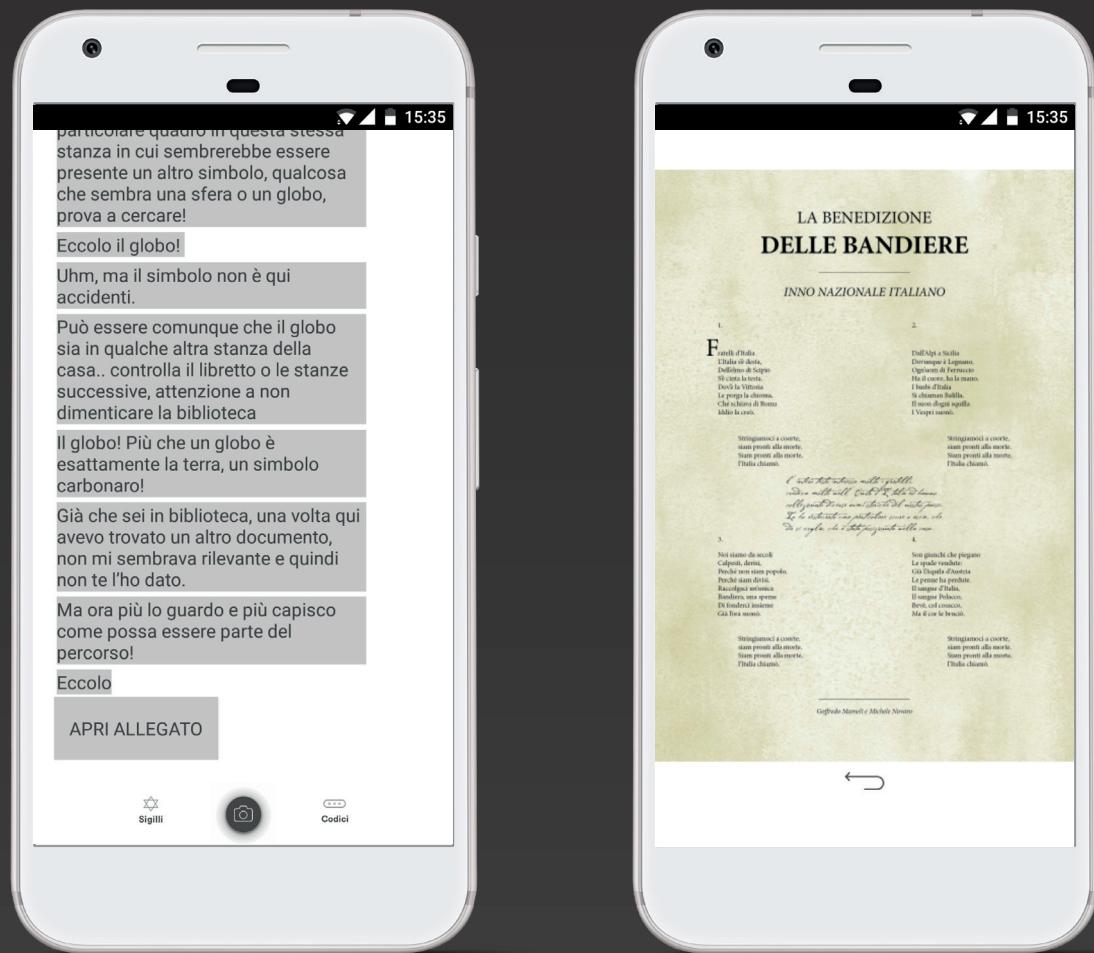
When a new seal is found the 'new message' screen appears, taking the user back to the chat section.



# app sections

## Chat with Leopoldo

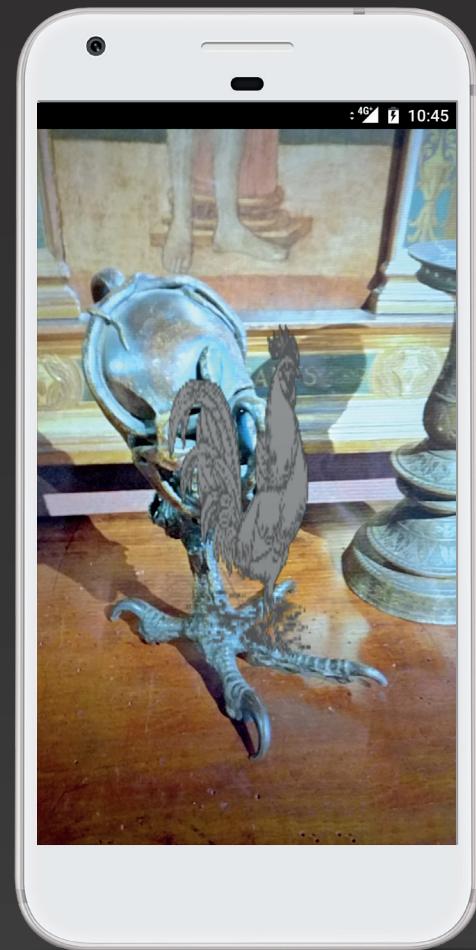
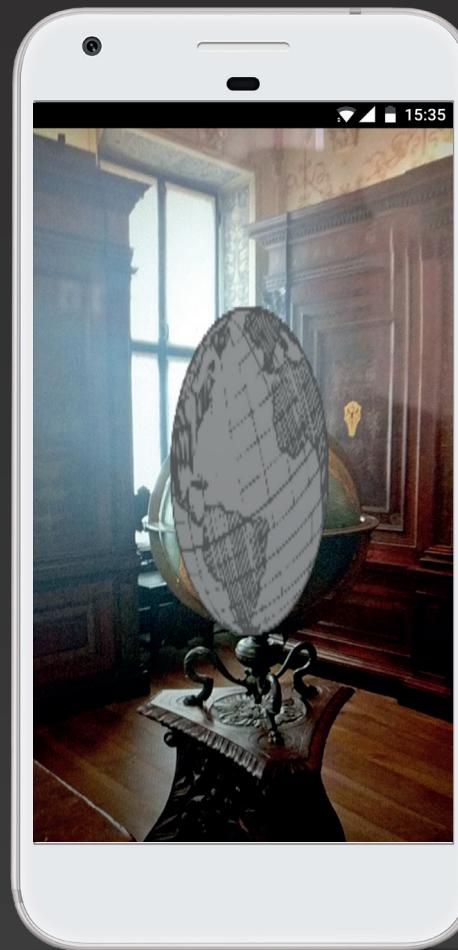
The app main section, where messages from Leopoldo, that allow to continue the search for the path in the house, are displayed. When a new seal is found the 'new message' screen appears, taking the user back to the chat section.



# *app sections*

## **AR Scan**

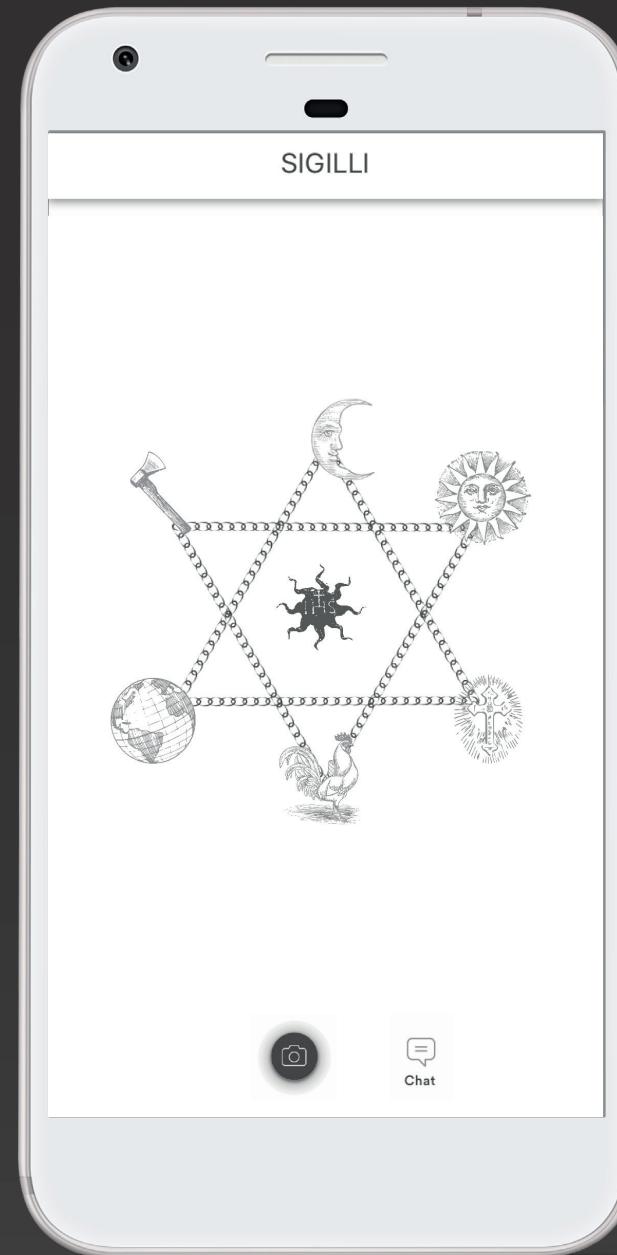
The 'camera' button placed at the center-bottom of the chat screen enables the user to acces the Augmented Reality scanning feature that allows to find the seals and the Carbonari codes hidden in the house.



# *app sections*

## Seals star

In this section the seal are added as they're found by the player in the house. The symbol at the center is the one that indicates the location of the final step of the experience.



# *app sections*

## **Encrypted Codes**

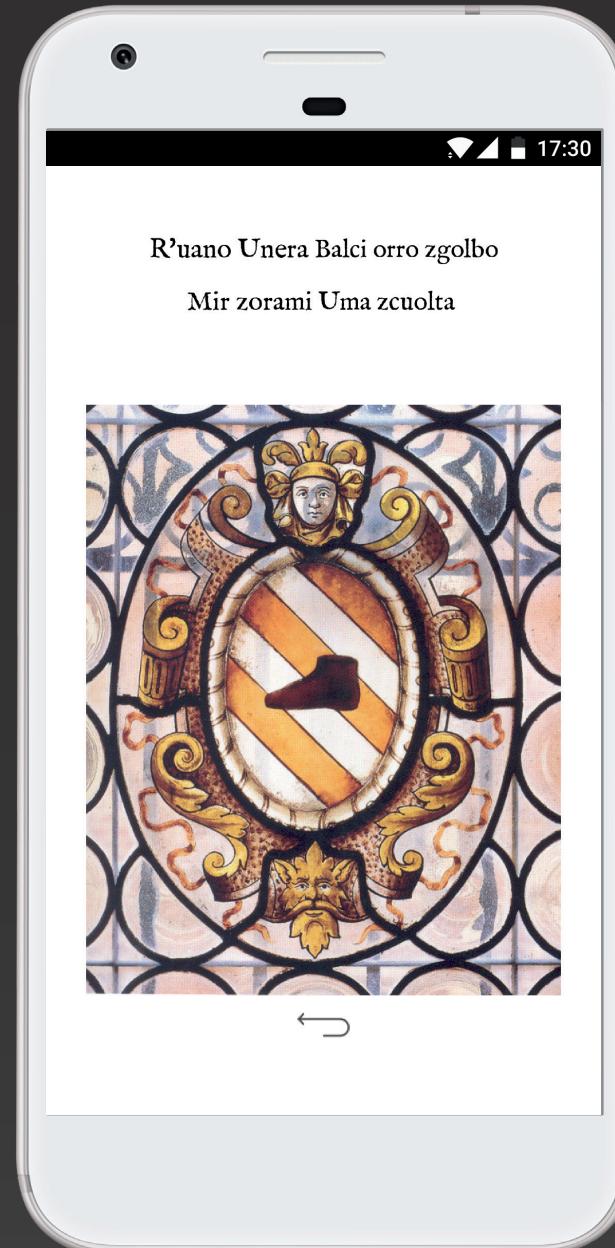
The 'camera' button placed at the center-bottom of the chat screen enables the user to acces the Augmented Reality scanning feature that allows to find the seals and the Carbonari codes hidden in the house.



# *app sections*

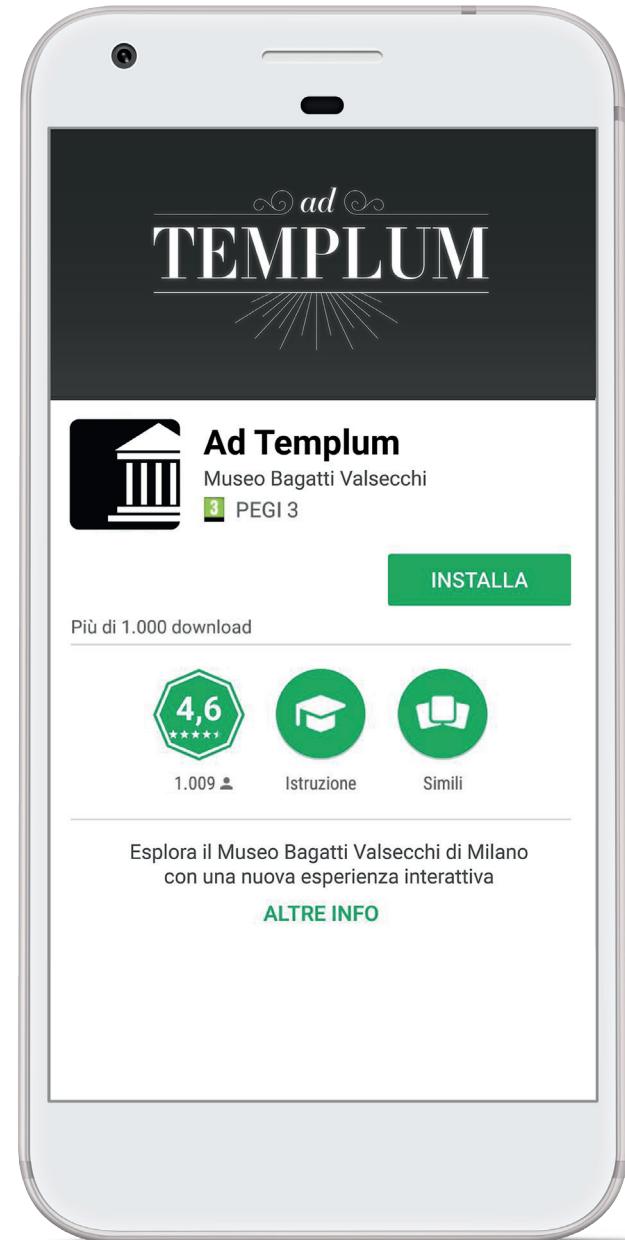
## Encrypted Codes

The 'camera' button placed at the center-bottom of the chat screen enables the user to acces the Augmented Reality scanning feature that allows to find the seals and the Carbonari codes hidden in the house.



APP DEVELOPMENT

# app icon



# *game kit*

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LEOPOLDO'S LETTER  
BOOKLET  
MUSEUM MAP  
CARBONARI STAR

## GAME KIT

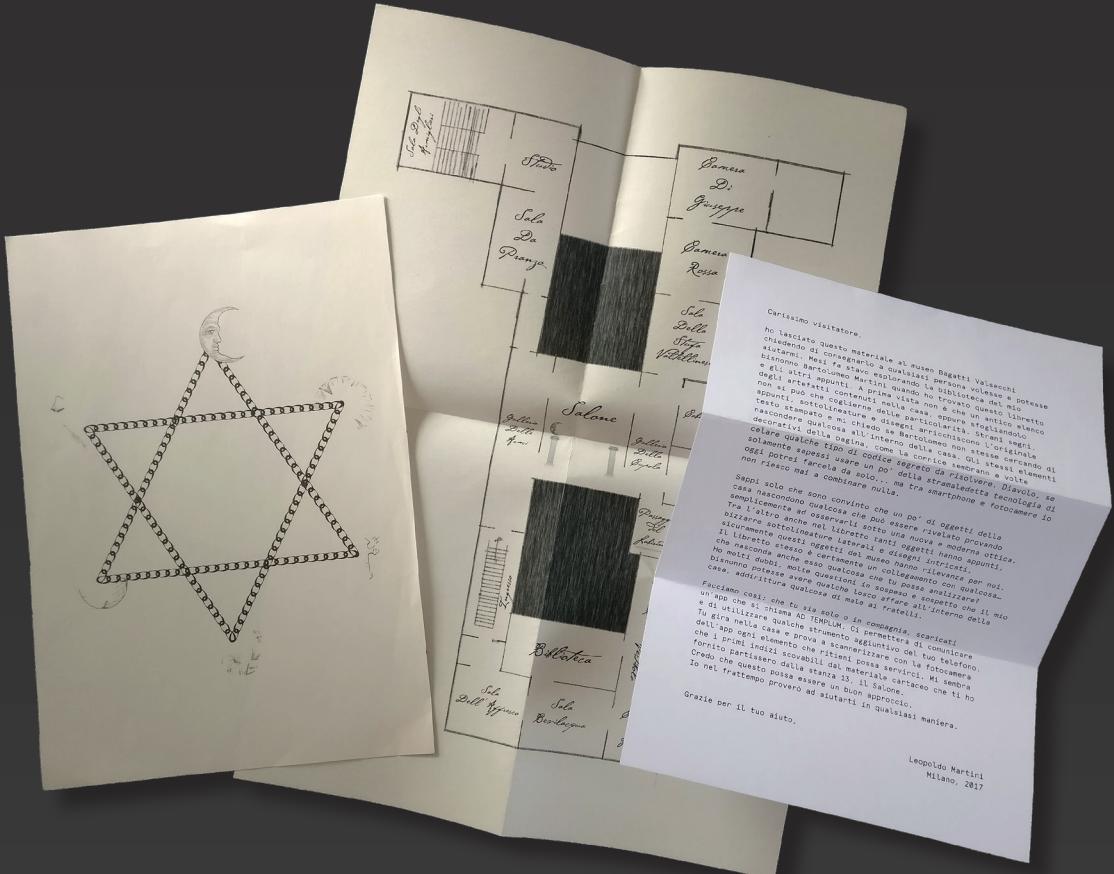
# *full kit*



# GAME KIT

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# *full kit*



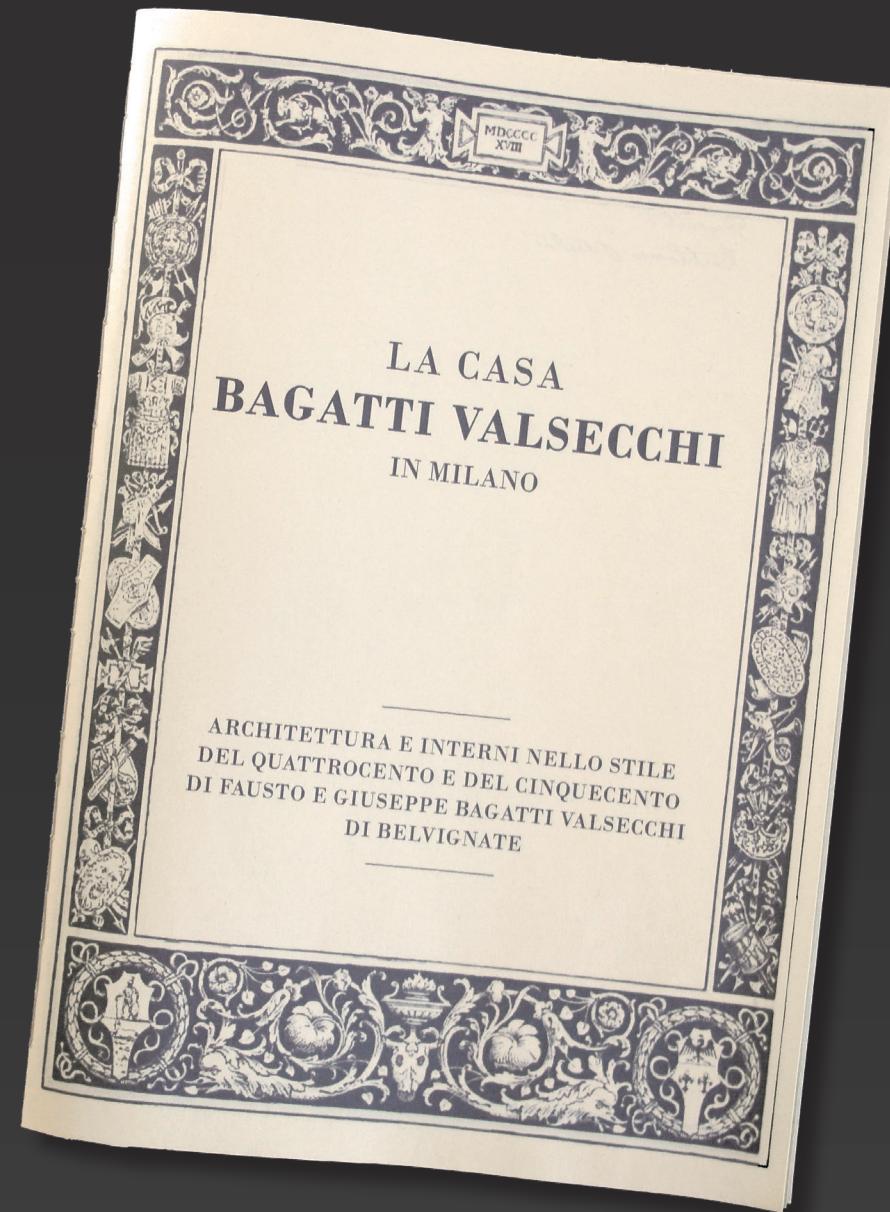
GAME KIT

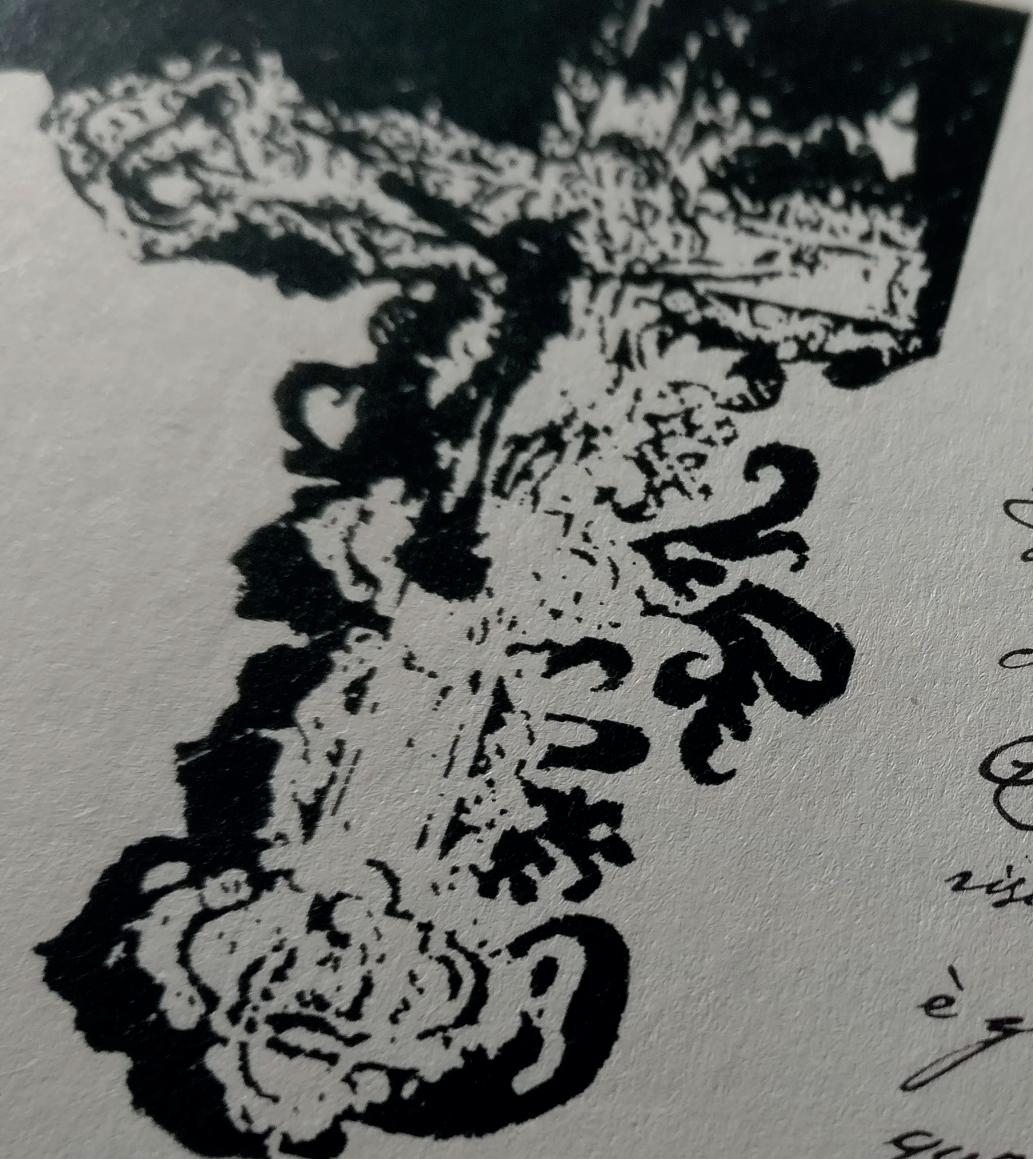
# booklet

The booklet containing all the **educational content** concerning the museum collection.

In addition to it there are **clues** to solve the treasure hunt, in the form of notes, small drawings and encrypted codes.

A5 format printed on aged fanfold paper 70gr.





- di catalogazione

Regalerò questa croce a  
Giuseppe dopo che avrà finito  
di restaurarla, al momento  
ci sto ancora lavorando.  
Qui appunto un disegno del  
risultato, la sua immagine  
è già in grado di rivelare  
qualcosa.

VITTIME · CELATO E BEFFARDO QUIZ GHERMSCE PERDENTI VITTIME

## GALLERIA DELLA CUPOLA

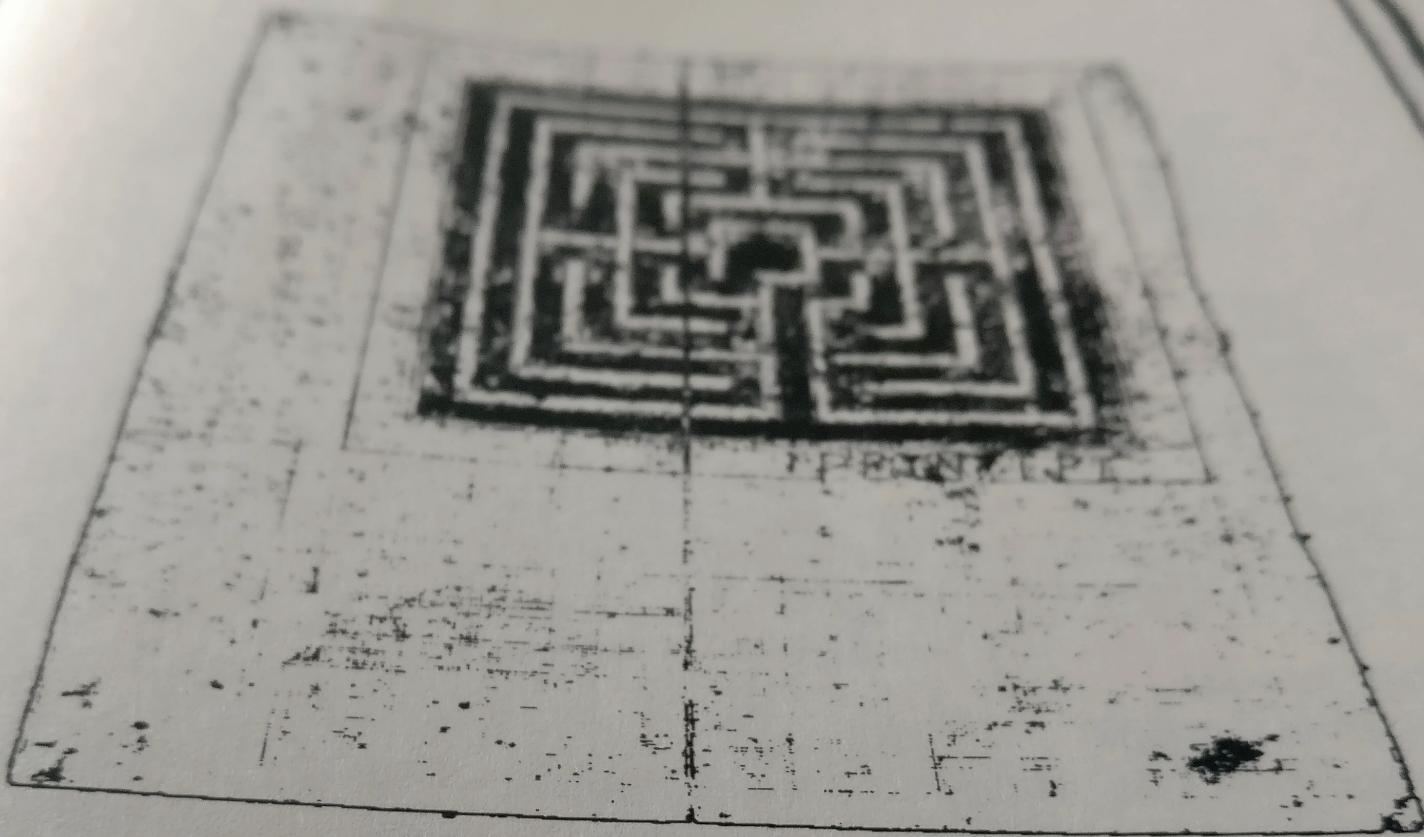
funge da raccordo tra l'appartamento di Fausto e quella moglie Carolina Borromeo. Anche qui ritorna la decorazioni rinascimentali e interventi in stile: gli affreschi a imitazione di quelli cinquecenteschi nei sottarchi, a chiesa di San Vincenzino a Milano.

telnuovo Scrivia. La Natività con i Santi Sebastiano e

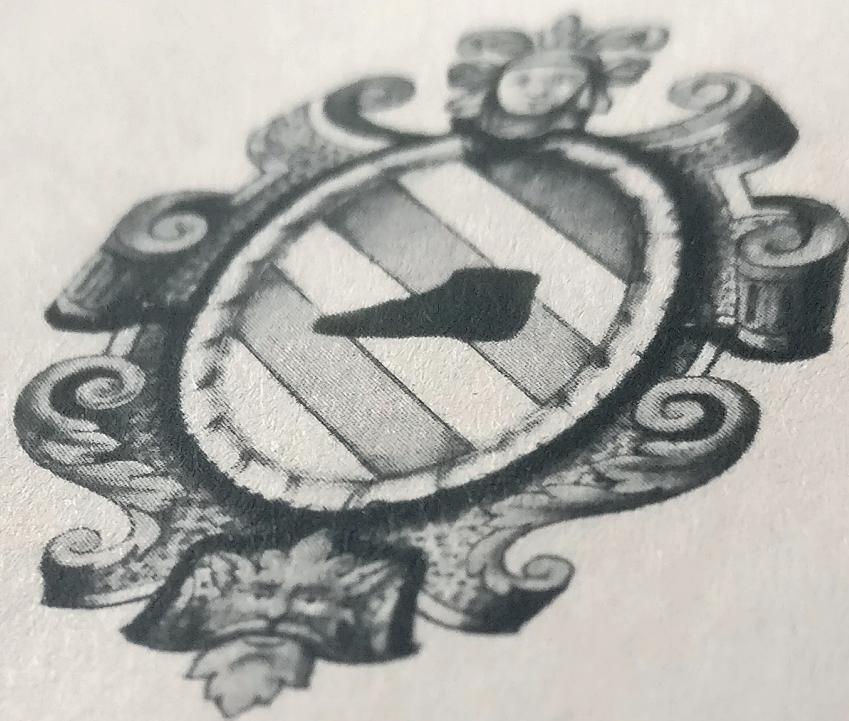
ne proviene dall'Oratorio di San Rocco a Casalnuovo, nei pressi di Alessandria. Vi compare anche il Santi crano chiarimenti, San Vincenzino a Milano, con la gamba piegata, gli sta

Ippolito Rombaldoni, V.  
XVII secolo  
Su questo vaso e  
chioni e dell'  
ni dipinge  
come  
di

QUES CHILNEZGLI BILIMIDE FEDDENI · GRODA I PIVONIA



uno schizzo preliminare dell'opera, quale  
simbolo più iconico per il mio percorso se  
non un labirinto?



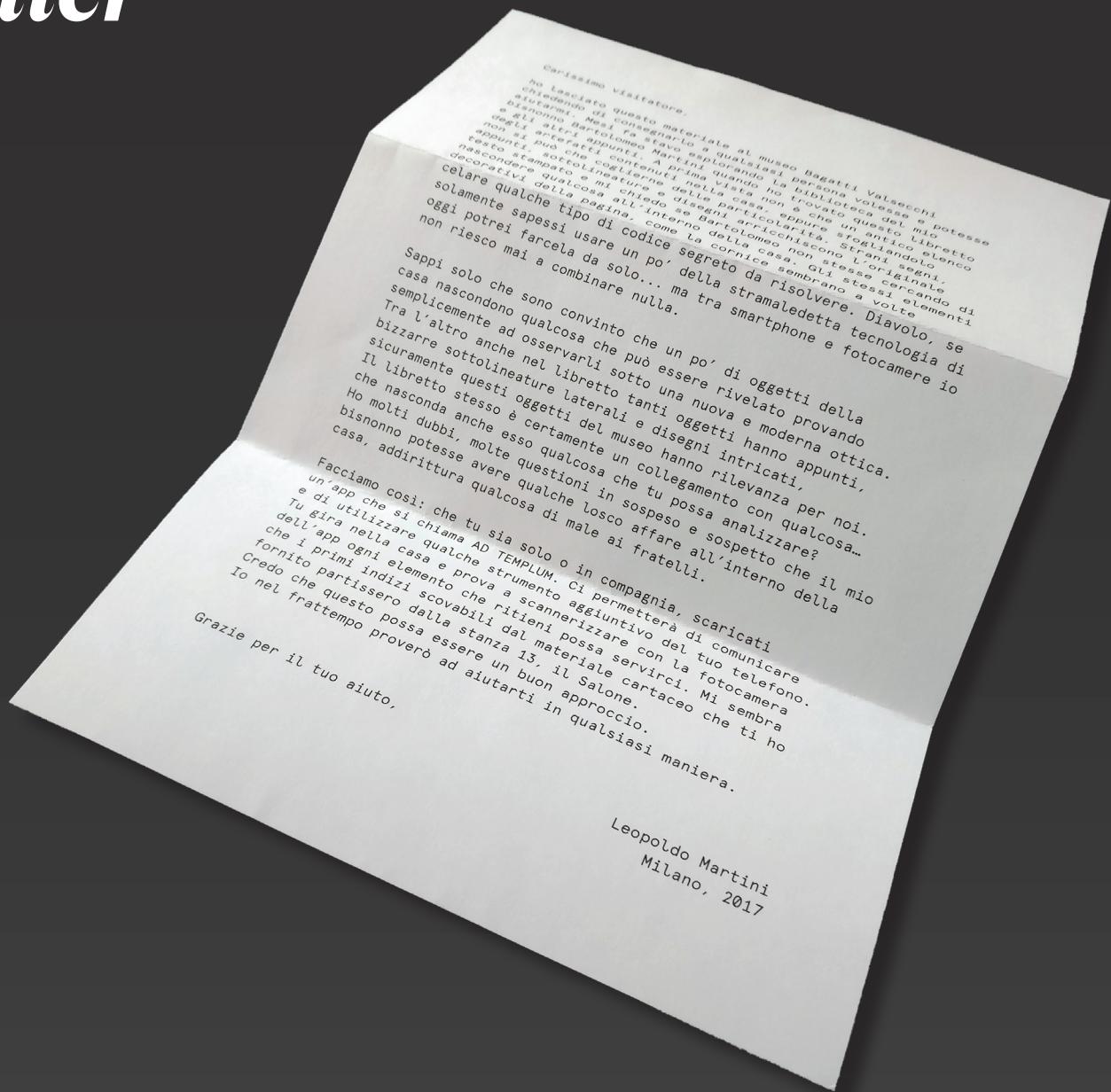
# GAME KIT

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# *Leopoldo's Letter*

Introductory that allows to get to know the experience narrative background and introduce to the solving of the first tasks explaining the basic mechanics of the game.

A5 format printed on  
uncoated paper 100gr.

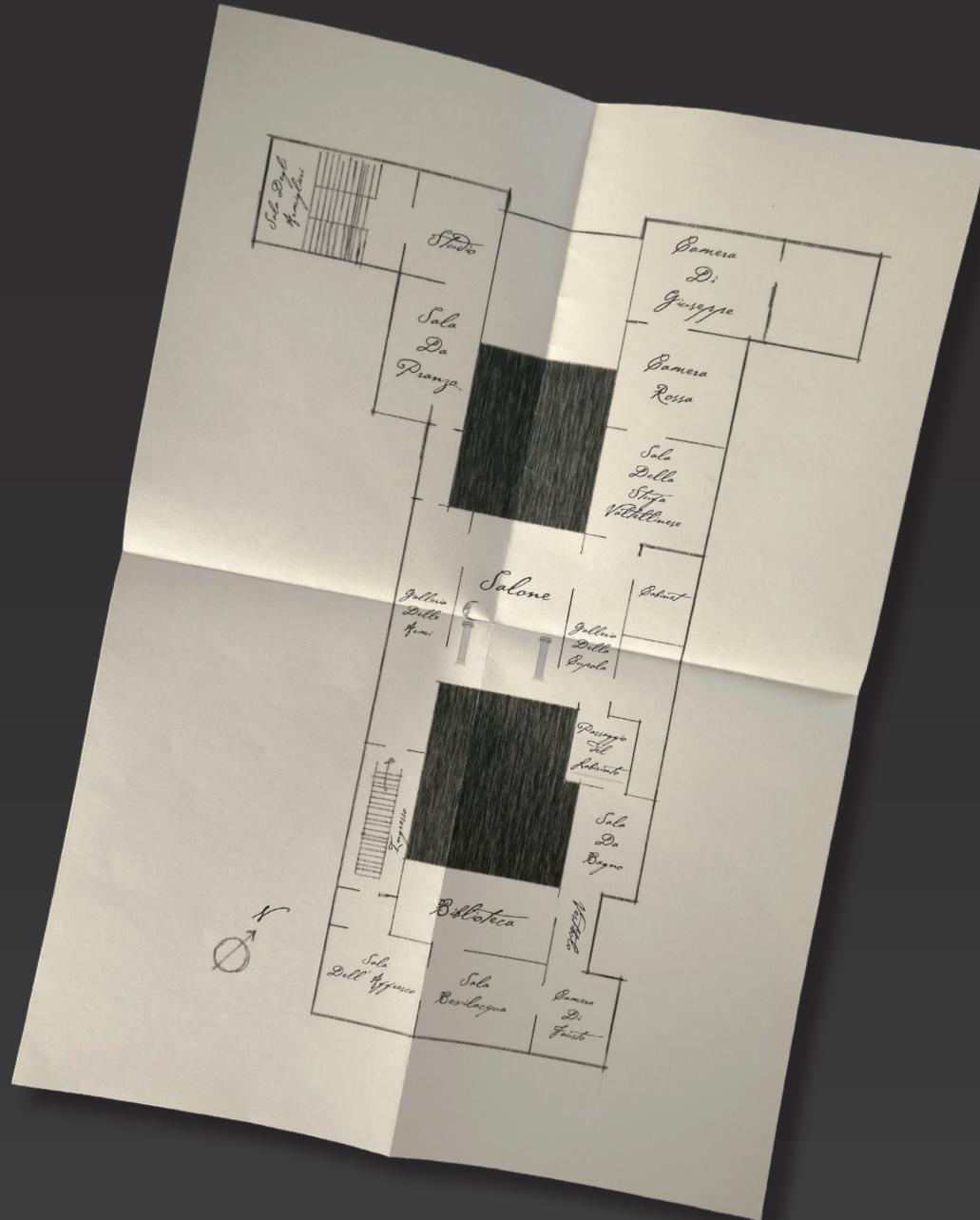


## GAME KIT

# *museum map*

The museum map that shows the names of the rooms, helpful to solve some tasks. It's a separate sheet inserted in the booklet.

A4 format folded into A6, printed on aged fanfold paper 70gr.

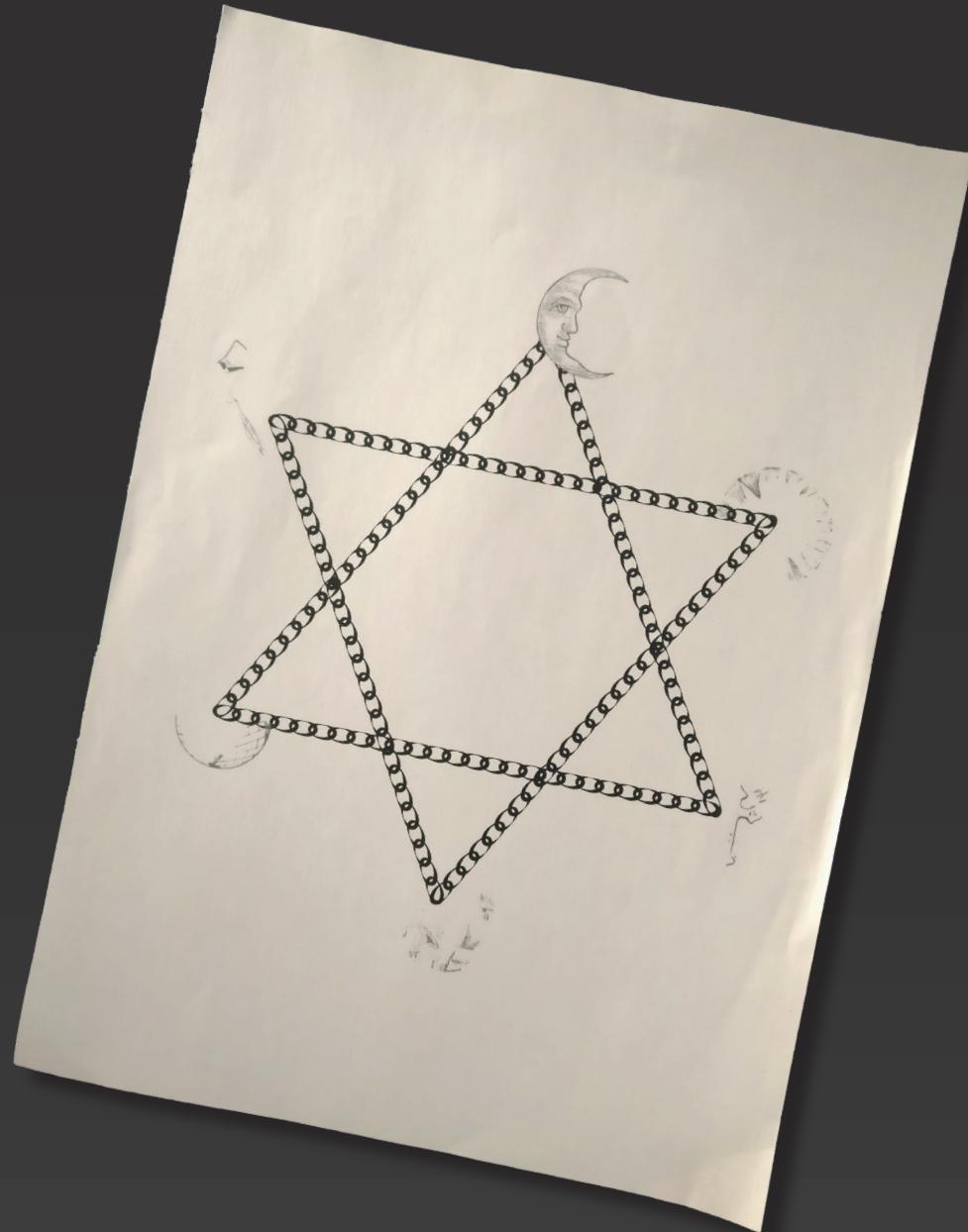


GAME KIT

# *carbonari star*

Sheet that shows the Carbonari star with its hinted sketched symbols  
By scanning the star with the app it triggers the first riddle to solve.

A5 format printed on aged fanfold paper 70gr.



# *promotion*

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OUTDOOR ROLL UP

INDOOR A4

PROMOTION

# *outdoor roll up*



PROMOTION

*indoor A4*

*ad*

# TEMPLUM



**BA<sup>3</sup>V<sub>A</sub>**  
MUSEO BAGATTI VALSECCHI

Una nuova esperienza  
interattiva al Museo  
Bagatti Valsecchi.

*Aiuta Leopoldo Martini  
a ricostruire un percorso  
segreto nella casa.*



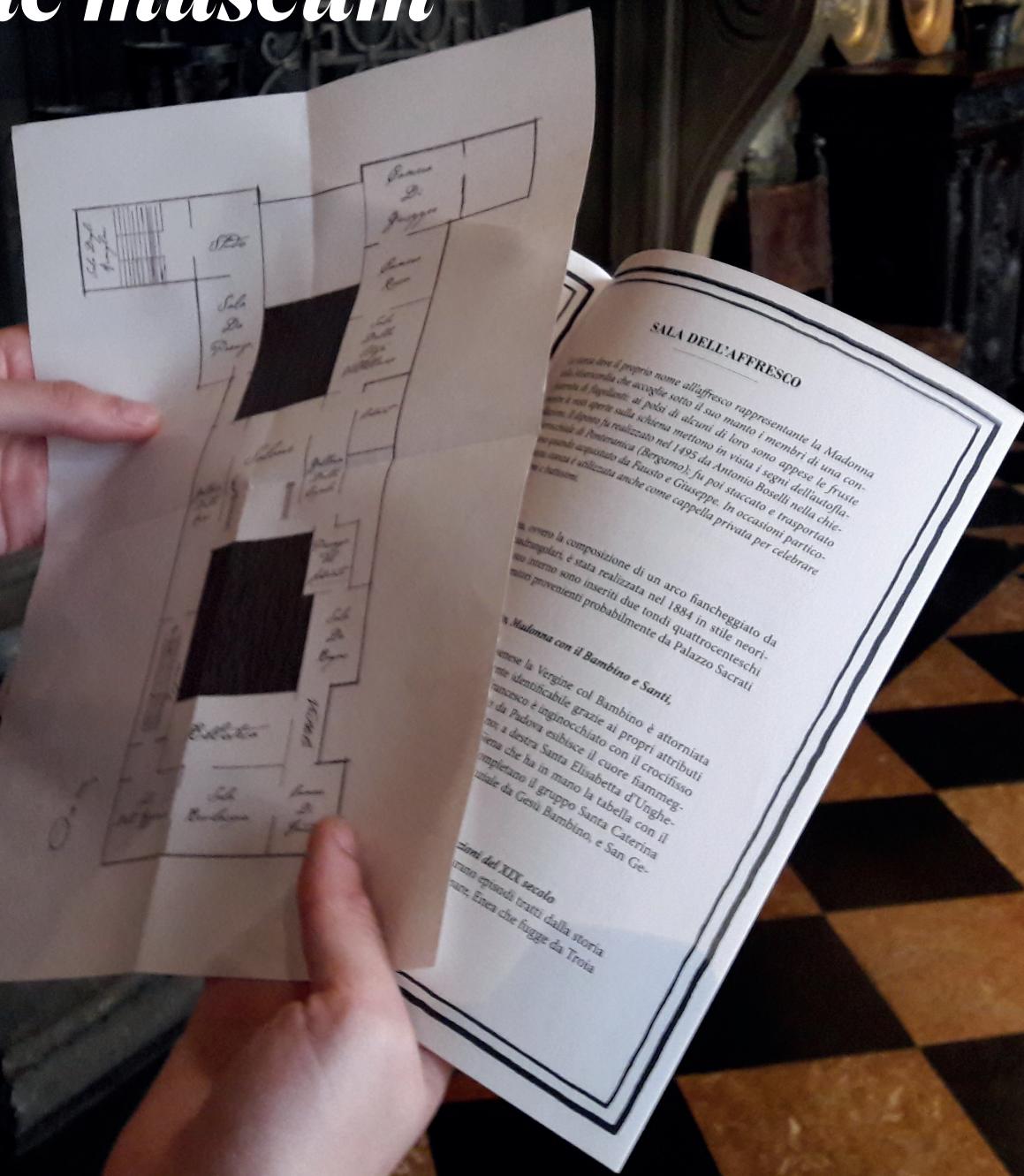
*testing*

---

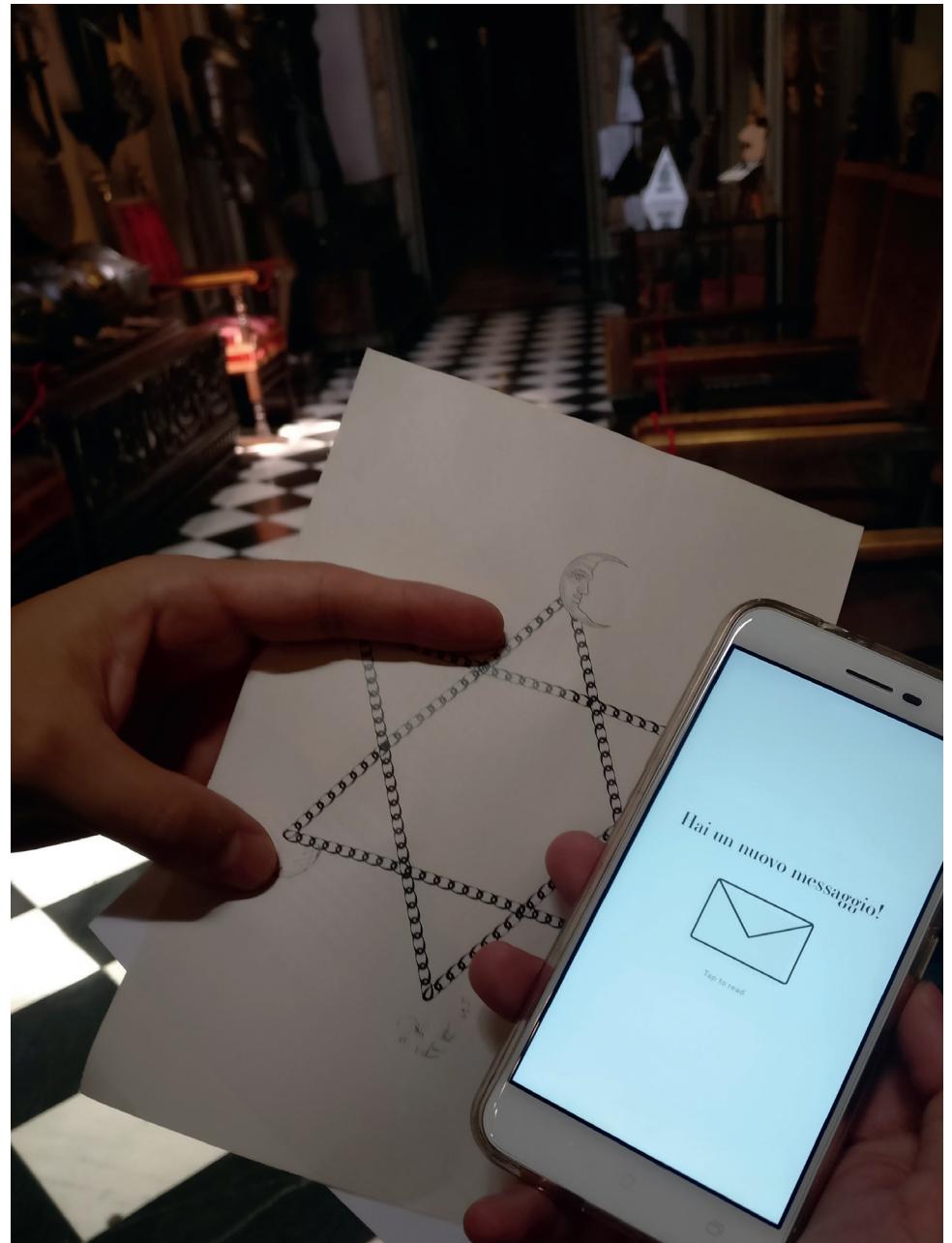
TESTING AT THE MUSEUM  
FEEDBACK  
FUTURE IMPROVEMENT

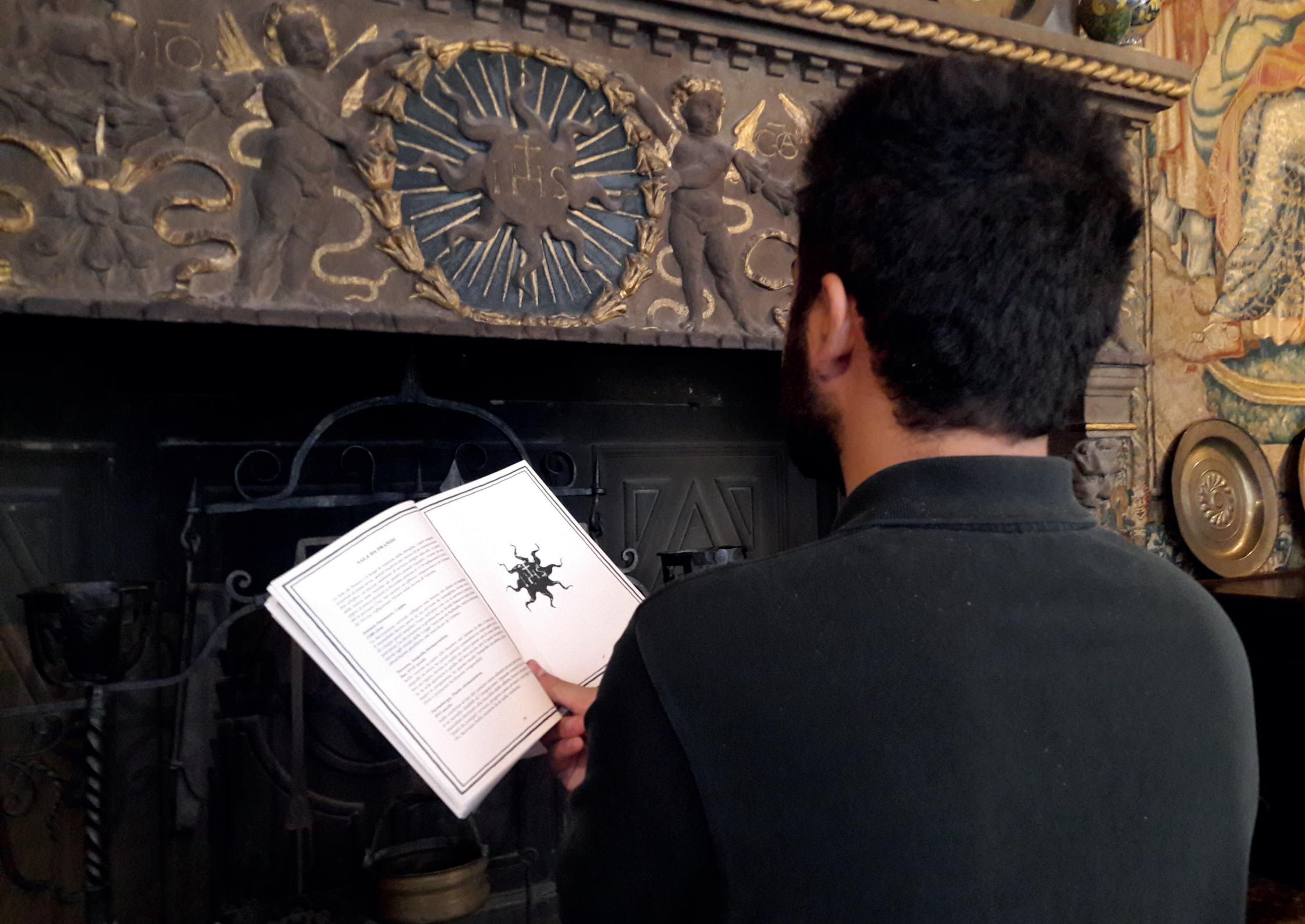
# TESTING

# *testing at the museum*









# *feedback*



## **what people liked**

narrative world  
graphic and aesthetics  
efficient game kit  
flow and surprise effect at the end



## **what people didn't like**

confusion at first  
app's malfunctionings and crashes  
unwieldy game kit  
difficulty level too high

# *feedback*

## Main problems:

1

Both groups weren't able to solve the secondary path without help.

2

Both groups had trouble to understand how to complete the first task.

### Why:

Probably because it wasn't explained clearly enough in the booklet.

### Why:

Probably the initial letter (which explains how to solve the first task) isn't clear or maybe to long to read.

# *feedback*

## How to solve:

1

**Highlighting the presence of the secondary path since the beginning,** not just hinting at it but making it clear in the app or highlighting it more in its section.

2

The initial letter has cause the **TL;DR. syndrom**, we intend to make it easier to read by shortening it and summarising the essential information making it more effective.

# *feedback*

## **Non specific problems' solutions**

**confusion at first**

Simplifying the first task with more clues in the in app chat.

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**unwieldy game kit**

Adding the single sheets into the booklet.

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**difficulty level too high**

Adding a support system that allows to receive more clues from Leopoldo when the device is shaken.

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**app's malfunctionings and crashes**

Prototyping with Vedils has allowed to integrate the AR but this has resulted in some crashes.

*ad*

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**TEMPLUM**

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*grazie*