

# Consentia Itinera: an Interactive and Immersive Story of the Identity of the City of Cosenza

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The Consentia Itinera Multimedia Museum, funded by the Fondazione Attilio e Elena Giuliani Onlus, reveals the story behind archaeology, events, symbols, landscape, artistic heritage and personalities that have characterized the history of Cosenza, in Southern Italy a part of ancient Magna Graecia, and a “crossroads” of Big History. The museum is located in the austere and elegant Villa Rendano, built in 1887 by Domenico Rendano, and the inauguration was held in November 2017.

The layout offers an interactive route winding through the entire second floor of the Villa, focusing on specific episodes and people, with an immersive and multimedia fit-out including virtual reality and holographic projections on circular walls. These tell the story of Cosenza, from its origins until modern times.

Original images, virtual reconstructions, texts and voices form a storytelling experience, accessible to all visitors, in which classical authors such as Pliny, Euripides and Ovid combine with virtual reality to give bird’s eye views, and walks in the lanes of the city.

Among the episodes are stories about the sack of Rome and the treasure of Alarico, that according to a legend is buried in Cosenza, the transformations of the city caused by earthquakes, epidemics and invasions, the Renaissance, the Risorgimento and the unity of Italy. The story of the twentieth century is told in an environment reproducing a cinema of the early years of the century but equipped with chairs and virtual reality devices.

The aim of the project, implemented in a building of remarkable historical-artistic interest, is to enhance stories, images and events of different ages.

Visitors are offered an immersive experience, with a wide mix of contents, with changing perspectives and themes.

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## Key words:

Multimedial Museum, Immersive Experience, Digital Storytelling, Innovation.

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## INTRODUCTION

Consentia Itinera, funded by the Elena and Attilio Giuliani Foundation, is an innovative multimedia experience, installed by ETT S.p.A. in Villa Rendano, providing a virtual tour through the history and identity of the city of Cosenza. It is based on a blend of storytelling and technology, taking visitors on an emotional, innovative and individual journey through the art, culture, traditions, myths, tales and main historical events of Cosenza, from its origins until modern times. All this was made possible thanks to a fit-out merging scientific research with real scenery, virtual reconstructions and interactive exhibits with immersive projections; together with touch-screens, computer-graphic animations and virtual reality units.

The fascination surrounding the myths and history of Cosenza throughout its history is contained in seven rooms on the top floor of Villa Rendano and follows the chronological development of the events and characters that make up the millennial history of the city. It is a celebration of history through technology, while also being a museum. Starting with the early settlements of the Brettii and the Romans, it continues with the myth of Alaric and the mediaeval sites that are still symbols of Cosenza – the *Duomo* and the *Castello Svevo di Federico II* – through to the philosopher Telesio, then to Cosenza as Alfonso Rendano knew it in the nineteenth century and the modern city. The

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journey ends “in the cinema”, where visitors, sitting in comfortable chairs and wearing virtual reality viewers, enjoy beautiful pictures from the twentieth century and an immersive experience leading up to the present time. The climax is a flight with 360-degree views over the city of Cosenza, alternating with walks in the lanes of the Old Town.

## CONCEPT AND CONTENTS

The exhibition path is structured on seven rooms and follows a chronological development of the periods and characters of the city’s millennial history.

The concept behind the Museum is the application of technology in the enhancement of cultural heritage and the use of technological solutions to share and spread the knowledge of artworks and territories. It is a new way of thinking about cultural enjoyment as an experience [Bourke et al. 2013].

With the development of technology the “virtual dimension” has grown, offering spaces and experiences that go beyond architectural spaces and beyond museum collection limits. In *The Virtual Museum of The Learning Museum Network Project*, Prof. Massimo Negri identifies some of the functions that a virtual museum can specifically fulfil:

- On-line exhibitions
- Active role of users in building their own collections
- Visual archives of past temporary exhibitions
- Experiencing the museum “behind the scenes” (storages, restoration workshops, etc.) via a webcam, etc.
- Exhibitions of objects destined to disappear in a short time and digitally recorded for ‘eternity’
- RSS: following history in the making
- Objects on-show coming from any possible point of the world at the same time
- The possibility to compare digital objects of the most divers physical natures
- Enrichment of the user experience: closer access to masterpieces...but at a distance (Google Art), augmented reality, 3D modelling.... [Bourke et al. 2012]

Focusing on the last point, the Consentia Itinera museum concept starts from the important shift – that can be identified in recent years – from the idea of a collection – oriented museum to that of a visitor-oriented one, and in recent years another shift to a user-oriented one, in which the relationship between the museum and individuals goes well beyond the specific moment when he/she visits the exhibition.

The aim is to revitalise communication with visitors, transforming them from passive to active through an “immersive” experience. This approach is based on the concepts of “knowing through doing” and “recognise by touching”, creating synergy with gallery artwork and environments, so that each age, academic and social group (from school children through to students, adults, parents and pensioners) will dynamically relate to the immersive visitor experience. This leads to positive visitor feedback and increases visitor numbers [Frasca et al. 2015].

The outcome is the result of in-depth historical and artistic research, fundamental when developing storytelling with strong emotional impact, in which individuals who characterise civic history give a first-hand account of events and reconstruct, much like a jigsaw puzzle, today’s Cosenza.

The path begins in room 1, with two 4m sidewall projections showing dreamlike images describing a time when nymphs inhabited the woods and where the Crati and Busento rivers flow strongly. At the point where these two rivers meet, the Lucan rebels, led by the legendary warrior Brettia, decided to found their city. Brettia appears in a 2.5m diameter central circular projection and tells visitors about the year 356 BC when the city was founded, due to its strategic position, and inhabited for the first time. Visitors watch the story unfold under a primordial sky, shown with great evocative impact on a backlit ceiling.

Travelling through time, visitors move into room 2 and see how the freedom of that proud city was defended at great cost before finally falling to Rome. A 4.5m immersive frontal projection on a semi-curved wall, narrated by a Cosentian noble, explains Consentia’s passing from an independent metropolis to a Roman dominion. Following the siege in 40 BC, the city actually gained in importance and, thanks to the presence of Rome, continued to be one of the most important cities in Calabria. A backlit wall highlights the position of Consentia on the Tabula Peutingeriana, a copy of an ancient Roman map showing the Empire’s military roads.

Visitors are taken, thanks to a large frontal projection, from the Roman era to the sack of Rome, which occurred in 410 AD. A 2D animated video, deduced from illustrations, brings to life the myth of Alaric I, king of the Visigoths (see Fig. 1)



Fig. 1. Detail of the Museum, room 3 dedicated to “Alarico and Cosenza”.

Simultaneously, a “magic book” projection starts and visitors first hear verses by Iordanes, a Byzantine historian, narrating the deeds of Alaric and the mysteries surrounding his treasure, and then the famous translation by Giosuè Carducci of the poem “*La Tomba nel Busento*” (The Grave in the Busento) by the German poet and writer August von Platen-Hallermünd [Carducci 1906]. The poem narrates the legend whereby the Visigoths, to prevent the Romans from violating the tomb of their king, diverted the river Busento near Cosenza and buried Alaric beneath its bed with all his weapons, his horse and his treasure. Room 4 is related to Cosenza’s Swabian period, narrated by Frederick II in person. The video covers the suicide of his first child Henry, the establishment of the *Fiera della Maddalena*, the consecration of the new *Cattedrale dell’Assunta* and alterations to the *Castello*. Two separate stories corresponding to these important symbols of the city: the Cathedral and the Castle, describe the mediaeval history of Cosenza. Visitors may use a touchscreen to choose an exact route, projected onto the wall, which goes into the history of the two monuments and the city’s mediaeval period.

Visitors are then taken through time from the Middle Ages to the sixteenth century. This century was hit by the plague but was also blessed by the founding of the *Accademia Cosentina* and the great people born in Cosenza. Off-screen, the voice of Bernardino Telesio, an important Cosentian philosopher, well-liked by Emperor Charles V (although suspected of heresy), tells the history of the city, the great plague and the story behind his thinking. Using a multi-touch table, visitors can activate two more projections showing the triumphal entrance of Charles V to Cosenza following his Tunis campaign, and the 16<sup>th</sup> century Renaissance of Cosenza in music, art and architecture (see Fig.2).

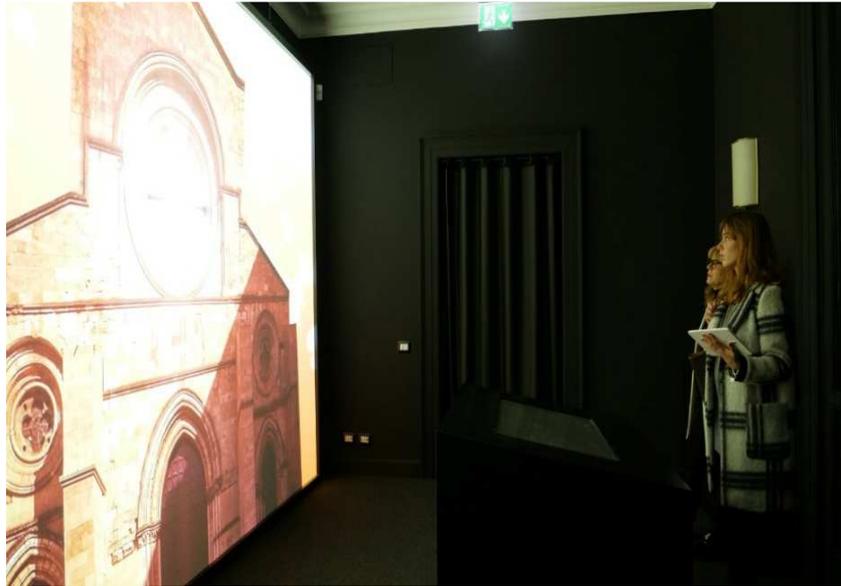


Fig. 2. Detail of the Museum, room 5 dedicated to “The Renaissance of Cosenza”.

A small corridor, with a backlit wall showing specially created graphics recalling Abbot Giovan Battista Pacichelli’s beautiful description in the seventeenth century, connects the passage to room 6: the nineteenth-century owner’s living room.

Here, Alfonso Rendano (played by an actor), an illustrious citizen and musician, is seen on a frontal projection waiting to tell visitors about the nineteenth-century history of Cosenza. Three pictures in the room, consisting of framed screens, progressively come to life and accompany the words of Rendano. He speaks on three macro-themes: the jollity of foreign travellers who, thanks to the Grand Tour, rediscovered places of antiquity; the *Risorgimento* history of the Bandiera brothers; and the evocative inauguration of the *Teatro Rendano* in 1909, with Giuseppe Verdi’s *Aida*. Also highlighting the theme of this room is the projection on the surface of a baby-grand piano of musical notes accompanied by background music; excerpts from original compositions by Alfonso Rendano.

In order to simulate the trip from the nineteenth to the twentieth century, a scenery subterfuge reproduces a cinema box office of that time. Visitors sit on rotating chairs and wear Virtual Reality head mounted display (see Fig. 3), that lets them enjoy beautiful twentieth-century images. In an emotional crescendo, thanks to technology and themed audio, this immersive experience brings visitors back to the modern world, ending with a virtual flight over the city of Cosenza with 360-degree drone videos above the roofs of the Old Town.



*Fig. 3. Detail of the Museum, room 7 dedicated to Virtual Reality experience.*

The visit experience does not end there. Apart from the physical museum, visitors have access to a specially made multi-platform mobile application that supplies information and suggestions even after the visit. In fact, thanks to this additional technology, visitors can go behind the scenes and see how each room was created. Once outside the museum, two trails guide visitors to a series of Points of Interest in Cosenza, to find visible traces of its history.

The Consentia Itinera mobile application represents the true connector for the entire multimedia experience of this new, interactive, and immersive digital museum in Cosenza.

## TECHNOLOGICAL SOLUTIONS

Within the evolutionary process about the “virtual museum” described above, museums have become increasingly digitally: not only for cataloguing and conservation, but also for enjoyment and communication.

The central point, on which ETT has focused its development activities - as described in papers presented in NODEM 2013 and Digital Heritage 2015 conferences - is the enhancement of the visitor experience [Campodonico et al. 2013]. The trend towards improving visitor experience has taken, in recent years, a great leap forward. This new approach to museum exhibitions is based on the use of the most recent technologies and devices in order to:

- Enhance visitor engagement and interaction
- Give visitors an active role to play, part visitor – part actor: a “visit-actor”
- Define the goal of an “immersive museum”, in which the visit-actor is absorbed into the storyline

By selecting specific technologies and using the most innovative and useful devices, ETT creates Museums and exhibits which become for the visitor an immersive, multi-sensory journey to discover different themes, and are a combination of the most modern set design guidelines, latest technologies and the emerging trends of museum storytelling.

Following this approach, different technologies were employed in Consentia Itinera museum, depending on the room and content: key episodes and key people in Cosenza’s history, with the aim of allowing visitors to participate in the most significant moments of Cosenza’s history over thousands of years. One of this project’s great challenges, by virtue of this concept, was to use the best available technologies to convey historical-scientific content in the most realistic way, telling not only the history of the city but all the notable moments where Cosenza’s local history met Big History.

Exhibition blends real scenes with virtual reconstructions, interchanging immersive settings with interactive exhibits, and providing moments of shared views and private enjoyment, working together to ensure the visitor a varied, exciting and engaging experience.

All texts and audio contents are available both in Italian and in English. Museum operators control through a mobile interface (tablet) the choice of language for the contents of the hall exhibits. The videos were made using a mix of archive and computer graphics images, in order to obtain an effective immersive effect. Below the details of the equipment and technologies used in the museum rooms.

### Room n.1: The Origins

Immersive setup consisting of:

- Double lateral video projection on a semi-elliptical structure
- Rear projection on a circular screen at the back of the room
- Ceiling made with backlit fabric

The room exhibit is completed by audio and narrating voice synchronized with the video contributions.

### Room n.2: Bruttian metropolis and Roman supremacy

Immersive room consisting of:

- Frontal projection on a semicircular structure on which the video contents of the treatment are projected, ending with the visualization of an image of "type" Roman baths.
- Backlit wall with graphics consistent with the theme of the hall

The room exhibit is completed by audio and narrating voice synchronized with the video contributions.

### Room n.3: Alaric and Cosenza

The room, separated from the previous by a scenic backdrop and sound-absorbing curtains, is characterized by:

- Video projection of the scenes of the Sack of Rome on two wings placed on the walls opposite to the entrance door
- Exhibit "magic book" realized with ad hoc setting structure, where the texts of the poets (Iordanes, Carducci) are synchronized in a dynamic way synchronized with the images of the video projection

### Room n.4: The Middle Age and Frederick

The room is characterized by:

- A front projection on the wall, where two different types of movies are shown
- A printed graphic placed above the darkened window
- A desk that houses a 22" touch monitor with an inclination suitable for viewing by which the user can choose the contents of the projection

The room exhibit is completed by audio and narrating voice synchronized with the video contributions.

### Room n.5: Cosenza during the sixteenth century

The room is characterized by:

- A front projection on the wall, where two different types of movies are shown
- A table that houses a touch screen that allows the visitor to activate other contents in the video projection

### Room n. 5b: Between the 17th and the 18th century

This section is a corridor where are located:

- A backlit and graphic wall
- Audio content activated via a multimedia player, activated by a presence sensor

### Room n.6: Cosenza during the nineteenth century

The living room of the landlord Alfonso Rendano, embellished with props, is entirely reproduced in the room. The real windows are completely darkened. The experience consists of:

- A balcony projection with French doors through which - appropriately timed thanks to the first input sensor - are displayed videos related to the most important episodes of the twentieth century for the city of Cosenza
- The reproduction of a grand piano that will automatically play a composition, on which images are projected

### Room n.7: Cosenza during the twentieth century

The room dedicated to the '900, which on the walls a neon sign bearing the inscription "Gran Cinema Italia", furnishings and some posters of the time. The setup is based on the following elements:

- An introductory space that reproduces the box office of a cinema of the beginning of the century. In this first room the viewers are delivered to the visitors.
- A second area for the use of the Virtual Reality experience, with nine seats equipped with Samsung Gear VR devices (head mounted display integrated with a smartphone)

### Touch screen – Further information

Upon completion of the tour, visitors have the opportunity of using a touch unit – positioned on the lower floor of the museum – where they may view all the texts, photos and video-documents that were the basis of the exhibition design. In this way, they can go into more detail on the emotional experience they have enjoyed.

### Mobile app

The Consentia Itinera App (see Fig. 4) is structured in three sections, allowing visitors to find their way both indoors and outdoors. The first section is dedicated solely to Villa Rendano. During the museum visit, visitors can enable Bluetooth on their devices, and beacon technology (BLE, Bluetooth Low Energy) will activate detailed content for each of the seven rooms.

After the museum part of the visit, the immersive, interactive and multimedia journey into the history and identity of the city of Cosenza uses this mobile tool to widen the boundaries of the experience and transfer it outside the museum, into the open air. Visitors may choose between *Cosenza Medievale e* (Medieval Cosenza) and *Cosenza Ottocentesca* (Nineteenth-century Cosenza). These will take them to a series of main Points of Interest (POIs) and 36 secondary POIs dotted around the city.

The application uses mobile device geo-location to get to the POI, during which time only a partial version of the special content may be accessed. By enabling GPS, visitors will “unlock” additional content detail when close to each POI.

The application is available on both the marketplaces, both for Apple and Android devices, on AppStore and GooglePlay.

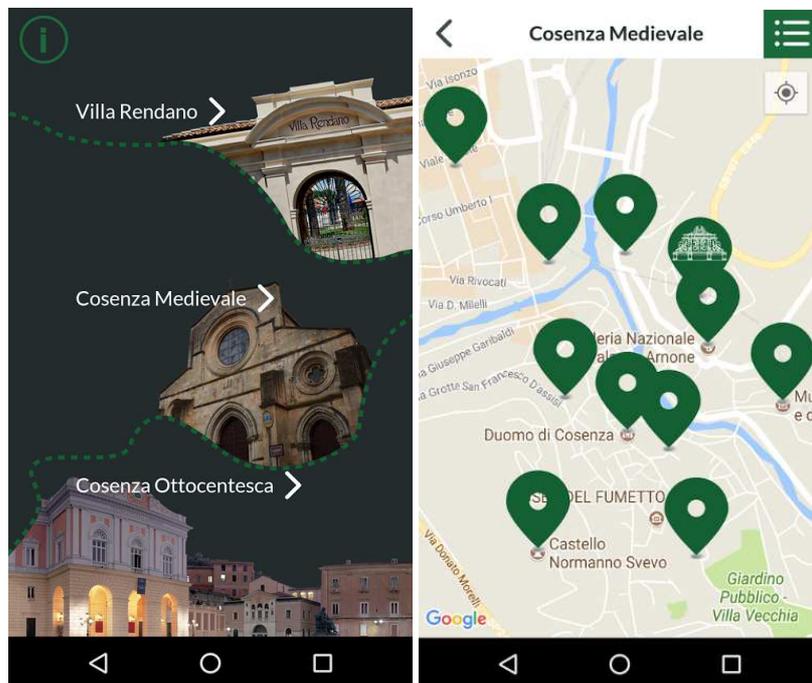


Fig. 4. Detail of the Consentia Itinera App Mobile, sections and map.

## RESULTS

According to the ministerial directive, the Museum has immediately issued its own Organizational Regulations and has included the ICOM requests for an adjustment and the Museum Code of Ethics, by appointing a person in charge for the reception and customer services. It makes use, furthermore, of the everyday support of young Calabrese High School students, taking part in alternating school-to-work programs and training of these specific activities.

Consentia Itinera shares the concept of the Museum as a welcoming place, where the visitor, either used to cultural themes or not, can become both the guest and the main character. Moreover, it offers a unique experience allowing everybody to enjoy his or her visit in the Museum in a positive atmosphere.

Since the inauguration day (on 09-11-2017) to date (31-1-2018) the number of Museum visitors has amounted to about 3.420, of which 1830 with a reduced entrance fee (therefore young visitors) and the rest at full rate.

Several events have promoted the access of visitors not spontaneously directed to the Museum, such as: two days a week dedicated to families, educational and game birthday parties, conventions, private events, coffee shop, library, etc. These events have triggered a significant process of communication about the services offered and their high quality, such as to increase the number of spontaneous visitors both on weekdays and during the weekends.

As far as regards this last point, though being a private Museum, it offers a public service of 50 hours a week and has remained open during the Christmas holidays in order to widen the possibilities to access and to use it during the holidays.

Several elements contribute to give a complete picture of the visitors' level of satisfaction (feedback questionnaires, positive reviews of cultural experts, the academic world with which the Museum has signed a number of special agreements, positive reviews on Social Media and on the signature book of the Museum).

The communication campaign, started on the pre-inauguration stage, with constant actions on newspapers, local TVs, and on local public transport, has gone on with specific dissemination actions promoting the activities, the family days and the services offered by the Museum and the Villa. Several graphic images have promoted storytelling, one of the main characteristics of the Museum, with images of the historical characters telling a unique and engaging story, in addition to the graphic images promoting the Virtual Reality Tour available through the special VR head mounted displays.

Flyers and brochures describing the multimedia itinerary have been distributed in the town shops and retailers.

The communication campaign will go on with even a greater impact and a variety of directions, useful to intercept tourism flows before their arrival in Calabria, and with specific actions promoting the integrated visit of the Town Museums.

Historical research, multimedia and strategical development of the territory: these are the key words of the Consentia Itinera Museum. Innovation, entertainment and immersive experience are the cardinal points of its approach to visitors. The visit to the multimedia Museum of Villa Rendano becomes a real experience because it meets the needs for edutainment and entertainment both of the local citizen and of the tourist. All of them, indeed, in a 45 minutes tour, will be able to understand the historical events of the town of Cosenza and to appreciate its particular beauties, immersing into the story told by the characters, as storytelling is the distinctive characteristic of the Museum. The knowledge of the intricate events of local history is enhanced by the Center for Studies and Research on the Town instituted by the Foundation. This comprises the traditional library with its ancient and modern volumes on the town, a touchscreen digital library, containing the digitalization of less accessible books and documents (with the purpose of promoting library funds of local libraries), a docu-films archive on the Museum themes, an archive of theses and specialized studies dealing with the different disciplines of the Museum.

The mission of the Center for Studies is to promote research, study awards, conventions, exhibitions on the town and its cultural heritage in a perfect synergy and inter-institutional cooperation with the other Organizations of the territory.

The Museum has activated a network of schools, of cultural associations, of tourist guides as, though firmly believing in innovation and internationalization; it confirms its deep-rooted attachment to the local area and to the preservation and enhancing of cultural heritage and local context.

The Museum represents an emblematic example of how digital technologies can support the dissemination of the intangibility of history and the reconstruction of historical contexts. The planning of temporary exhibits has already started which deal with historiographical reconstructions on single cultural monuments of the town and are based on the combination of significant local cultural heritage and the digital representations of the original contexts and of their historical, artistic and archaeological phenomenology.

## CONCLUSIONS

Consentia Itinera represents one of the few "City Museums" in Italy, able to tell the story of the city, reflect on the past to build the future of urban life, become catalysts of the city's cultural activities, following the model of the Museum of London, which represents a point of excellence in this sense.

This project, where cutting-edge new-media technology meets in-depth historical and artistic source research, was designed to offer the city a new observatory: a privileged point from which to browse the pages of its history. It is also a starting point for a visit to the city, making people aware that Cosenza's aspect today is the result of its important past.

This awareness should not be reserved for the casual tourist. It is just as necessary for the local population and especially for the younger generation. Rediscovering their own history helps the development of a higher level of sensitivity, for the protection and enhancement of their cultural heritage and the Old Town.

More than 3.400 museum visitors, since it opened on 9th November 2017, confirm the success of the initiative.

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