IMAGES
AND IMAGINATION
DIALOGUES BETWEEN ART, ARCHITECTURE AND URBAN SPACE: VIDEOMAPPING AT VINOVO CASTLE

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In today's society, where images –especially if in motion or emphasized by sounds and musics– play an important role in the communication and dissemination of more or less cultured topics, there is an increasing number of projects in the territory in which videomapping is used to liven up and promote cultural events, capable of triggering interest in realities and territories that are sometimes poorly valued. This is the case proposed here, regarding the recent project wanted by the Municipality of Vinovo, that organized two parallel cultural events of different levels and interests: an exhibition about the grotesques, to appreciate the value of those ones present in its castle, and the *Festival delle Magie*, an event capable of attracting the public with the charm of its spectacularity. And the Municipality itself has asked the Carillon Theater to link the two events together and make them even more attractive through the video mappings that are presented here, which have connected aspects and characters, material and immaterial, creating a show that has also put together the architectural and environmental reality with the imaginary world, structuring an engaging journey through the continuous transformation of the forms obtained from the on-site surveys and imaginative configurations, capable of immersing the spectators within a show that goes beyond the boundaries of reality.

INTRODUCTION

In recent years, the importance of artistic interventions on the territory has been understood, capable of relaunching the image, and not only, of places. Indeed, the marriage between art and urban space is more and more frequent, as demonstrated for example by the increasingly disruptive success of Street Art (Di Luggo & Zerlenga, 2020; Dipartimento DIST, 2023), allowing the urban landscape to become the scene for new visual and perceptive experiences, able to transform the image of the environment and the architectures themselves. The drawings and colors of true works of art are molded with the built environment, becoming part of it, often altering the perception of shapes and sizes, becoming an opportunity to beautify places and bring people closer to creative and visually captivating and communicative events.

However, the success of the marriage between artistic images and urban space today is not only entrusted to Street Art, but is becoming a protagonist of many other activities in the area proposed to become attractive occasions, not only referring to specific cultural aspects, but often aimed at triggering redevelopment processes of places, with various and wide-ranging repercussions. As shown by the "history of art, avant-garde artists have always exploited new techniques, tools and materials to express their intuitions: now videomapping represents one of the most innovative techniques in the field of art and visual design" (Del Luca, 2014, p. 310). The success of videomapping is linked to its ability to amaze, in which the combination of images, lights, movements and sounds, defines an engaging game for the spectators, which interprets in a modern key the success, for example, of the illuminations of popular festivals, belonging to the tradition, or even that of the refined "Son et lumière", which generate "a play without actors, where light and music act as narrators" (Del Luca, 2014, p. 311). A very fascinating 'game without actors' that has very ancient origins, and that

has been transformed over time and places by adapting to various cultures, which can already be traced back to the sinuous movements of light and shadows of antiquity, such as, for example, the Chinese shadow theatre of the Han dynasty, from 220 BC (Branchini, 2019).

Fascinating is the capability of videomapping to generate an illusory game between reality, interpretation and fiction, capable of making the viewers' imagination fly towards impossible scenarios, in which the images created 'tailor-made' for an architectural facade are able to make it change its identity through video projection. Therefore, it stems the possibility to deconstruct the identity of the built forms, connecting the references of the real aspect with the visualization of new virtual and ephemeral images, in a bond that amplifies the boundaries of the imaginary towards visions generated and conceived thanks to the artistic imagination of those who conceived and created them. And it is precisely the artistic imagination the key element for making videomapping always up-to-date, which "seems to be at a crossroads: on the one hand, exploiting new technologies to renew itself, on the other, not limiting itself to them, always putting the spotlight on the creative dimension" (Pavoni, 2017, p. 6). Actually, the rapid advancement of modern production, post-production and video projection technologies clearly influences the results, even if, as Kellner states, art and technology are two closely connected aspects, and neither of the two must prevail over the other (Pavoni, 2017).

The technological possibilities are certainly the basis of the result but it is the creative project that makes the difference, developing a sequence of images, movements and sounds, capable of leading towards an immersive experience, in which reality alternates with fantasy games in a sequence of emotions. Videomapping, generated in connection with the shapes and dimensions of the architecture onto which the projection is performed, allows in fact to create a link between reality and illusory images mainly generated by

the creative imagination, capable of creating scenographic effects that distort, and at the at the same time connect the links between architecture, urban space and artistic images, defining a sort of contemporary Quadraturism.

The effectiveness of videomapping in being attractive by proposing new sensory experiences is the basis of its use for the purpose of promoting cultural heritage and places, creating appealing opportunities useful for the enhancement of the territory, or on specific themes or aspects, as well as to bring down focus on small towns. Indeed, ever more frequent are those cases in which public institutions, or museums, or cultural events use videomapping to attract visitors, proposing new interpretative readings of the local artistic and architectural heritage. This is the case of the videomapping experience presented below, created by the Teatro Carillon[1] in occasion of the exhibition *Painted Enigmi. Dalla Domus Aurea alle Grottesche di Vinovo*, at the Della Rovere Castle in Vinovo, in the Turin province[2].


VINOVO MAPPING: THE PROJECT

The 2023 project was born to create a site-specific videomapping show in order to establish an immersive multimedial exhibition inside the wonderful historical setting of the Vinovo Castle, built at the end of the 15th century, of which some wall decorations frescoed with grotesques by one of the towers of the building have recently been restored. The Municipality of Vinovo therefore wanted to celebrate this event with an exhibition in the halls of the castle, which could divulge the grotesque style, often underestimated and little known, making this technique interactive and current. A decorative technique invented by the Etruscans to embellish the walls of their catacombs and rediscovered over the course of several centuries, especially during the Renaissance and Baroque periods. It consists in the representation of natural elements, human figures and

bizarre fantastic creatures that create a decorative texture that occupies all the spaces on the walls. Together with the exhibition, the Municipality wanted to attract the city population and other visitors with the *Festival delle Magie*, a broader and more fascinating project, which would also bring them closer to understanding the value of the castle, its park and grotesques, discovering more generally Vinovo values, often little known.

THE GROTESQUES EXPOSITION

The part of the project for the exhibition was aimed at visually enlivening the walls and vaults of the castle halls with grotesque animations, playing on the fact that spaces already existed defined by stucco decorations, in order to create astonishment and a magical atmosphere that would involve the public and make them perceive the figurative vitality of these wall paintings (Figure 1). The first phase of work included site inspections of the castle rooms, necessary

Fig. 1 Teatro Carillon, Videomapping at Vinovo Castle (inside), 2023.
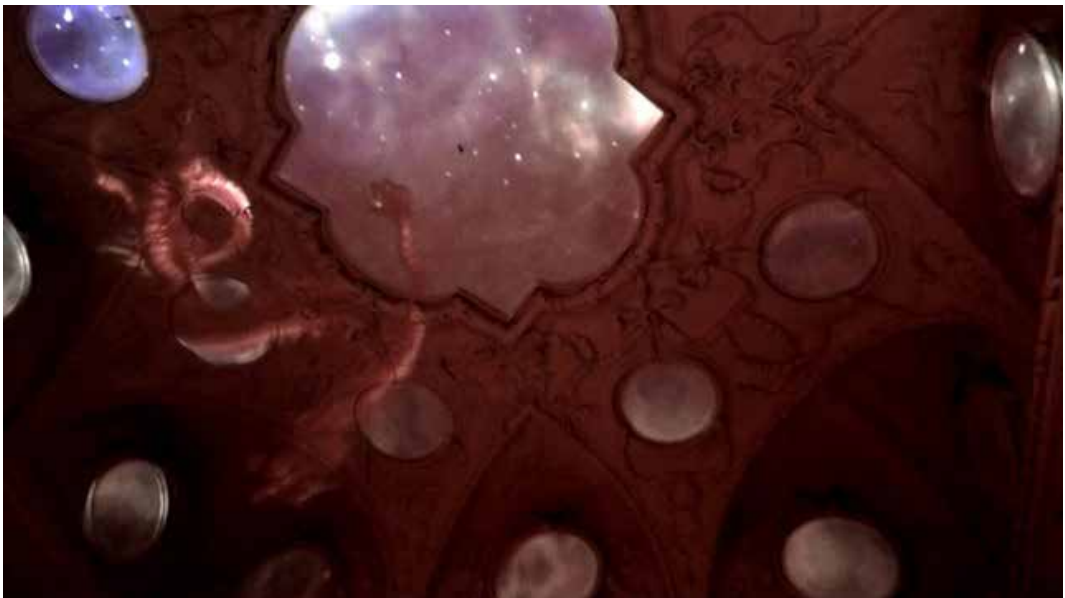
for the photographic and video documentation of the present decorations, for the design of the concepts and the planning of the type of projectors to be used and their positioning in each hall. On the basis of the characteristics of each room, in fact, in some cases ultra-short-throw or long-throw projectors were chosen to correctly adapt the virtual images to the real space.

In the exhibition space characterized by the grotesque engravings of the chandeliers with figures of dragons, it was decided to use the dragon theme as a key element of the videomapping concept. Within the circular stucco spaces of the vault, videos were made that simulated the presence of a breakthrough in the ceiling from which one could see the sky and the passage of various dragons and flying creatures, connecting the architecture with an awesome setup. In the adjoining room, however, figures taken from grotesque etchings were used, animating them one by one and creating a dynamic and entertaining general movement for the public, combined like every projection with an adequate musical production, which could support the movements and make the public perceive the right atmosphere. This project in which the imagination has overcome the constraints of the existing characteristics has been completed with the creation of a documentary to tell visitors the story of the grotesques over the centuries, with a focus on those in the castles of Piedmont, to better understand their value.

THE *FESTIVAL DELLE MAGIE* EVENING

But it is in the project for the *Festival delle Magie* that the maximum possibility of creating a fantastic place has materialized, where the imagination comes to life in the environment around the visitors, in a sort of augmented reality. In detail, along the access route to the castle, various light installations have been designed to entice people to enter its park. The first to welcome the public was a fractals morphing with the Festival logo inside, mapped on the town

Fig. 2 Teatro Carillon,
Videomapping at Vinovo Castle
(garden), 2023.

hall in the square in front of the gardens. Once through the park gate, two fairy figures welcomed visitors, appearing projected on the trunks of the two trees on either side of the central path, which with an optical illusion seemed to appear floating between the two cut trunks (Figure 2). The show of projections that brought visitors inside a fairy reality was also completed by other theatrical performances.

Indeed, at a certain point in the event, all the lights went out, leaving the bystanders waiting, when a character dressed in white appeared on stilts with a luminescent ball in his hand and a hat on the tip of which was placed a mini projector that illuminated his mask and created light refraction effects around it. This figure played the magician who would start the show; in fact, after a circle in the audience –accompanied by the song Santorini by Yanni, live at the Acropolis– he arrived in front of the main staircase and with a movement of his scepter he started the great videomapping projection on the facade of the castle.

THE MAIN SHOW: VISUAL CONFIGURATIONS BETWEEN REALITY AND IMAGINATION

In complete darkness, in which all references to the architecture and the environment are totally canceled, videomapping has created a dreamlike environment,

Fig. 3 Teatro Carillon,
Videomapping at Vinovo Castle,
2023.

Fig. 4 Teatro Carillon,
Videomapping at Vinovo Castle,
2023.

causing a full moon (Figure 3) to suddenly appear which, with
an upward movement, reaches the center of the facade and
with a he gradual opening of the perspective view is framed
by a cave overlooking a lake landscape. This immersion
in a fantastic environment, where even the movements
and sounds support the images creating expectation and
amazement in the spectators, continues with the waning
moon which becomes the nucleus of an explosion (Figure
4) that transforms into the immense eye of a flying phoenix.
This bird was chosen as a key element of the video mapping
because it is the protagonist of the frescoes found inside the
castle. In the projection, the phoenix, with a wide movement
of its wings (Figure 5), ignites a great fire (Figure 6), which
gradually goes out, still allowing the graceful movement of
the sparks to live for a few moments.

Fig. 5 Teatro Carillon,
Videomapping at Vinovo Castle,
2023.

Fig. 6 Teatro Carillon,
Videomapping at Vinovo Castle,
2023.

From this point begins a 'reconstruction' mechanism of the castle, which rises from the ashes like the phoenix, through the initial projection of historical views that recall its ancient image, introducing the spectators into an atmosphere of the past. The facade of the building is subsequently broken down into sectors which, through sliding movements, recompose the design of the openings, virtually enriched by grotesque decorations. The central area, in particular, is assembled by draft horses that drag the configuration of each floor up (Figure 7) to the completion of the façade (Figure 8). The overall image, which through the projection embellishes the essential forms of the front, becomes the setting for a perspective game, in which the planes are reversed, creating false settings decorated with grotesques, which transform the exteriors into interiors, and vice versa (Figure 9).

In this phase of the show, various architectural configurations follow one another, retracing the transformations that the castle has undergone over the centuries, with the element of the phoenix fluttering between the architectural elements. This perspective and three-dimensional game aimed to amaze the public through an optical illusion effect that destroyed the physicality of the building. A physicality of the castle that is redefined by the lighting, and then visually crumbles with cracks (Figure 10), until it vanishes in the dark.

Then it follows a new phase of rebirth, in which the leaves of a luminous plant (Figure 11), which burns and disappears, come out of nowhere, originating a new architectural configuration in which luminescent lines underline the openings of the castle, intersecting them and transforming

Fig. 7 Teatro Carillon,
Videomapping at Vinovo Castle,
2023.

Fig. 8 Teatro Carillon,
Videomapping at Vinovo Castle,
2023.

them with new forms of fictitious openings. The musical mood changes and after an effect that makes these lines vibrate as if they were on a liquid surface enlivened by the footsteps of a large creature, the windows gradually begin to populate with terrifying creatures taken from the grotesque frescoes. These beasts writhe in the searing flames and transport the viewer into a hellish environment to the point where a huge floating dragon comes to life and with a musical climax moves and appears to come out of the wall towards the audience and 'swallow' them.

These continuous passages between reality and the imaginary are made possible by videomapping which, thanks also to the speed granted by the projection and to the music and sounds that amplify the visual emotions, generates passages and connections that are sometimes

Fig. 9 Teatro Carillon, Videomapping at Vinovo Castle, 2023.

Fig. 10 Teatro Carillon, Videomapping at Vinovo Castle, 2023.

Fig. 11 Teatro Carillon,
Videomapping at Vinovo Castle,
2023.

even instantaneous between fantasy images, historical
quotations and configurations of architecture, which become
stimuli to approach culture in a playful way.

TECHNICALS DETAILS OF THE PROJECT

The creative videomapping work for the rooms of the
castle was planned on the CAD drawings of the survey made
using point clouds, which identified the dimensions and
shapes, particularly of the frames within which the images
were to be projected. The survey was crucial in configuring
the margins of the basic templates for the realisation of
the animations and in planning the position and type of
projectors to be used in each room.

It was selected: for the ceiling in the stucco room, an
Epson projector with 3000 lm xwga ultra Wide optics with a
ratio of 1:0.3; for the wall of the stucco room and the ceiling
of the second exhibition hall, two 2000 lm bookmaker
projectors with a protection ratio of 1:1.2; for the wall of

the second showroom, a 3000 lm Epson projector with a 1:1 protection ratio. All surfaces were videomapped with the Madmapper software and given the need to reproduce them for about two continuous months, as we were unable to make computers available, we had to find a continuous reproduction system.

The two more complex outputs were exported from the program to two Mini Mad media players of the same brand on which the program was installed. For the other two local outputs, the mapping geometries were exported from the program, animated on the final cut and reproduced in MP4 from an SD card inserted in the bookmaker projectors set up for this option.

The videomapping of the façade was designed with a different approach, starting with a photogrammetric survey, processing the photographs taken with a drone with Agisoft photoscan, in connection with some direct measurements. From the 3D model of the survey, a two-dimensional CAD drawing of the façade was obtained, which was fundamental for the creation of the images of the animation videos mapped and reproduced with Madmapper software. For the choice of the projector, a weighted research was carried out with respect to the size of the 47-metre long elevation, 50-metre projection distance, using optics with a 1:1 projection ratio and a minimum resolution of 1920x1080. Also on the basis of the budget provided, we opted for renting two 12,500 lm Panasonic projectors, mounted on cages with micro-adjustment, superimposed vertically at a height of 3.50 metres.

The success of the show was made possible also by the possibility of switching off the light sources around the castle, creating a darkness that made even more spectacular both the scenic effect of the videomapping and that of the stilt-walkers who, as they paraded through the crowd, activated the projection; a face-mapping helmet was created for them using a 200 lm Kodak portable projector with a 1:1 projection ratio.

CONCLUSIONS

This work shows the added value, and rather unusual, in having created a link of continuity between the environment and architecture that surrounds us every day and various art forms that, ranging from videomapping to street theatre, have created a story, which in its scenic spectacularity has highlighted the historical and artistic values of that place, connecting them to a broader cultural context.

The visual representations proposed in Vinovo fall within a general framework in which videomapping stands as an ephemeral form of contemporary art that offers great opportunities for development both in the technological field and in the more properly creative and artistic one, in constant expansion. Beyond these and other possible developments, its added value can be identified in its being an artistic creation overall, with the ability to show itself in ever new narratives and, consequently, to also attract the attention of an audience that is sometimes extraneous to the most usual cultural events proposed in museums, exhibitions, or other centers. Hence its now recognized role of being a powerful means of communication and promotion of culture and places (Zerlenga, 2022), capable of triggering processes of tourist attraction and appeal, with impacts on the local economy and employment (Khosravi & Lim, 2013), or a "bearer of territorial marketing and a new idea of promoting places through technology" (Ivona & Privitera, 2019, p.131). Indeed, as evidenced by a survey by Panasonic (Panasonic Connect, 2022), in those places where videomapping projections have been made, considerable increases in revenue have been detected by local activities, during and after each event. It is therefore highlighted how this technologically avant-garde art form, apparently marginal or extraneous to the territorial strategies, and which may appear as an artistic fact in its own right, reveals itself as an increasingly sought-after tool to trigger processes of revitalization of a place and its culture instead.

A non-invasive activity with a sustainable approach, in which the shapes of architecture and urban space are transformed by embracing images of pure fantasy, allowing each user to be enveloped by the emotions of a suspended world between reality and the imaginary.

NOTES

1 Teatro Carillon is a group of artists, consisting of Jacopo Della Rocca, Giulio Davico and Tommaso Pigliapoco, who already have various videomapping experiences to their credit, including *Aurora in Luce*, *UFO*, *Barriera Cosmica* and *Surge*.

2 The videomapping was projected on the walls of the castle on the evening of the inauguration of the exhibition – exhibited from 11 March to 14 May 2023. The project is in collaboration with and with the contribution of the Regione Piemonte and the Fondazione Cassa di Risparmio of Torino.

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