

THE CITY THAT RESPONDS

An Immersive Experience with Ephemeral Art and Artificial Intelligence for an Immersive Heritage Urban Landscape of Vegueta, Las Palmas de Gran Canaria

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ABSTRACT

This proposal explores a model of interactive urban landscape in which buildings cease to be passive supports and become active interlocutors. By combining ephemeral projections with a language model (LLM) capable of speech recognition and synthesis, spectators can engage in oral dialogue with the architecture itself. The system, fine-tuned with heritage and cultural data, responds to questions about history, architecture, uses, and anecdotes, while projecting real-time visuals that illustrate its answers: original plans, architects' portraits, or historical re-creations. The methodology integrates video mapping, generative algorithms, and a bidirectional voice interface, shaping an immersive experience. The pilot focuses on the historic district of Vegueta, in Las Palmas de Gran Canaria, with potential for replication in other urban contexts. Expected results include a renewed perception of public space, the strengthening of local identity, and the creation of emotional bonds between city and inhabitant through a responsive and participatory urban landscape.

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1. Introduction

Urban art has become increasingly popular, especially light projections on buildings. From the traditional and pioneering Festival of Lights in Berlin (2005) to the most recent one in Noor Riyadh (2021), via Zagreb (2017), events of this type are booming. The visual art of digital projection has a remarkable power of attraction for the masses, and local authorities frequently incorporate it into night-time celebrations.

This visual technique of projecting images, usually accompanied by sound, is known as video mapping. The history of video projection mapping as urban art has milestones that explain its consolidation as a mass phenomenon. Although the first experiments date back to the avant-garde of the 20th century—with experimental projections in Erwin Piscator's theatre in Weimar or in Jean Michel Jarre's multimedia concerts in Paris and Cairo—it was in the early years of the 21st century that a qualitative leap towards public space took place. A pioneering case was Troika's intervention in Amsterdam (2005), which explored the idea of 'playing urban games' through interactive projections on facades, turning the city into a collective play space and anticipating what is now recognised as augmented urban landscapes (Işıkkaya, 2023, p. 119). This European precedent marked a turning point that paved the way for major international mapping festivals, such as Festival of Lights (Berlin, 2005), Vivid Sydney (2009), Signal Festival (Prague, 2013) and iMapp Bucharest (2014), which attract hundreds of thousands of visitors every year and confirm the massive appeal of this ephemeral and technological art form. The city thus becomes, in its open spaces and landscape, a direct medium for art and creativity events. This cultural and creative potential is not merely ornamental: numerous studies emphasise that the integration of art and culture into urban planning is linked to innovation, sustainability and the strengthening of local identities, which crystallise in creative neighbourhoods (De Souza Sánchez, 2024).

Video mapping is not only used in artistic and cultural projects, but also in diverse contexts such as advertising and entertainment events. Some examples include the projection of images onto buildings at night to create visual spectacles, or its application in concerts and music festivals to create immersive audiovisual experiences for the audience.

At the same time, in recent decades, many cities have experienced a progressive loss of landscape and cultural identity, resulting from a lack of institutional awareness of the urban homogenisation caused by globalisation, touristification and the pursuit of profitability in urban renewal. Few inhabitants perceive this phenomenon, which explains the absence of citizen or collective movements denouncing the erosion of urban identity. Recent studies point to both the loss of collective memory about the city's past and its structural elements (Qiu et al., 2025), as well as the irreversible disappearance of cultural assets that were part of that collective memory (Pérez-Hernández et al., 2020), have contributed to weakening urban identity. This same dynamic can be seen in Las Palmas de Gran Canaria, where the transformation of public and private spaces has led to the disappearance of heritage elements and the weakening of local symbolic references, with consequences for the quality of urban space and the inhabitants' sense of belonging and appropriation of their urban territory (Naranjo Henríquez, 2023). Likewise, the expansion of holiday housing has generated tensions between residents and visitors, affecting not only housing accessibility but also the cultural and neighbourhood identity of the city (Parreño Castellano et al., 2023). These processes are part of a broader trend in which gentrification and touristification are reshaping the urban landscape and jeopardising the emotional ties between the population and their surroundings (Velasco González, 2014).

In this context, it is worth asking whether visual artistic events based on image projections accompanied by sound (video mapping) that offer immersive content—where the observer interacts with buildings and public spaces—represent an opportunity to limit the loss of landscape and urban identity, and whether they help to strengthen the emotional bond between residents and visitors and the city. From this perspective, the observer becomes an actor, a 'dialogical interactor' or 'interactive spectator with a dialogical role', capable of learning,

depending on their interest in the place, about the history, heritage value and identity of the urban landscapes where these ephemeral interventions take place.

2. Research Objectives

This article aims to verify whether a variant of this type of event based on urban art can contribute to building the urban identity of a specific city or neighbourhood. This will be achieved through a proposal to create an event that takes a historical and heritage-based approach to the city's urban landscape.

The Canary Islands offer an opportunity for innovation in this regard, given the absence of this type of event. The aim is to reveal the urban landscape in the historic area of the capital of Gran Canaria in an interactive and ephemeral way, with the buildings and public spaces responding to residents and visitors about their identity. The city thus comes to life and becomes an active interlocutor. The creation of this event aims not only to make the city visible and known through a cultural event, but also to enable spectators, by partially directing the work, to learn about the urban planning and history of the place, thereby becoming aware of why it is the way it is, what its characteristic features are, what elements are most significant, etc. In short, the aim is for the spectator to understand the result of the current urban landscape through interaction and immersion in *video mapping*, so that their new perception of public space strengthens their local urban identity and enables them to establish emotional links between the city they are visiting and the city they live in.

Thus, the main objective of the research is to present a methodological proposal that combines AI, ephemeral art and historical-identity immersion in the Vegueta neighbourhood (extendable to Triana) of Las Palmas de Gran Canaria.

3. State of the Art

Recent literature on artificial intelligence applied to urban video mapping converges in three complementary lines. On the one hand, Lin et al. (2023) offer an eminently practical approach: they present a real-time projection system that transforms facades into surfaces sensitive to data and citizen interaction, demonstrating how AI can enrich the public experience. On the other hand, Ye et al. (2024) conduct a conceptual review of generative AI for visualisation, where they place video mapping as a field of application while highlighting technical and ethical challenges (quality control, bias, authorship). Finally, Daisuke et al. (2024) propose a technical review of architectural projection, highlighting calibration processes, adaptation to the environment, and automation through intelligent algorithms. Taken together, these works allow us to situate our research at the intersection between applied innovation in urban spaces and methodological reflection, pointing to the consolidation of AI-powered video mapping as an emerging field between art, data, and urban experience.

Regarding the influence of video mapping on the perception and knowledge of place, studies agree on its ability to reconfigure the relationship between architecture, spectator and public space. Treyer et al. (2013) emphasise the symbolic dimension of projections in festive contexts, while Lovell and Griffin (2018, 2022) describe the production of 'magical' landscapes and "enchanted" experiences that emotionally redefine the city and its heritage. In terms of heritage, De Paolis et al. (2022) show how a cathedral goes from being a passive object to an active storyteller, reinforcing identity and community ties. On an urban scale, Işıkkaya (2023) interprets the façade as a visual interface that mediates the perception of space, and, in the museum field, Shi et al. (2025) analyse how 3D projections generate narrative recontextualisation based on the visitor's experience.

Based on this framework, our article aligns with these contributions and adds a distinctive component: interactive mediation between viewer and architecture through language models. While previous literature documents the visual and symbolic reinterpretation of space, our proposal extends this to the conversational (voice-to-voice) and the situated activation of content

(plans, portraits, recreations) through projection, so that visitors can ask questions and the environment can respond in real time with documentary support. This leap—from contemplation to conversation—aims to consolidate urban identity and new forms of appropriation of public space in heritage contexts such as Vegueta.

Furthermore, the literature reviewed shows that surveys are a recurring methodological resource for evaluating the impact of immersive experiences on the perception and appropriation of space. Thus, De Paolis et al. (2022) use questionnaires to demonstrate how heritage *video mapping* transforms the viewer into an active participant, while Lovell and Griffin (2018, 2022) use surveys to document the emotional and symbolic impact of light festivals on visitors. These works agree that gathering opinions is key to contrasting the ability of *video mapping* to change the way heritage is viewed. Therefore, the relevance of using surveys to verify the central objective of the research can be affirmed: to assess whether immersive interaction with the urban landscape, art and architectural elements contributes to reinforcing knowledge and the link to urban identity in Vegueta.

The literature review highlights the relevance of surveys as an assessment tool in cultural and heritage contexts and legitimises their inclusion in our study as a methodological means of measuring the impact of the pilot experience and thus guiding the relevance and design of possible future proposals.

In the Iberian context, Casas Arias et al. (2024) highlight that generative artificial intelligence is revolutionising the languages of visual creation, opening up new possibilities for cultural mediation in public spaces. This framework allows us to understand how the use of AI applied to urban projections not only produces technical innovations, but also redefines the relationship between authors, heritage and citizens. At the same time, various studies in Latin America and southern Europe reinforce this potential: from video mapping projects in São Paulo and Belo Horizonte, which explored the appropriation of heritage spaces by citizens (Ribas & Silva, 2021), to interventions in Mexico City and Guadalajara, which integrated architectural projections as educational and tourist devices (Cervantes & López, 2020). In Spain, festivals such as Luz y Vanguardia in Salamanca and the Girona Mapping Festival have consolidated ephemeral projection as a tool for heritage reinterpretation and cultural innovation (Rodrigo-Martín & Núñez-Gómez, 2025). These international precedents show how the combination of ephemeral art, AI and active participation can reactivate collective memory and reinforce urban identities. In this sense, our study in Vegueta is part of this emerging trend by proposing a qualitative leap: moving from contemplation to conversation, from image to dialogical interaction, positioning architecture as an active interlocutor and thus consolidating new forms of heritage appropriation in the historic city of Las Palmas de Gran Canaria.

4. Methodology

Given the objectives, we propose a combination of ephemeral projections and a language model (LLM) with voice recognition and synthesis, so that the viewer can engage in oral dialogue with the urban landscape and the painting that represents it. The system, fine-tuned with historical and heritage data about the place on the one hand, and data about the painting on the other, answers questions about the history, architecture, uses and anecdotes of the city while projecting images in real time that illustrate its answers: original plans, portraits of architects or historical recreations. The methodology integrates *video mapping*, generative algorithms and a two-way voice interface, creating an immersive experience. The pilot project is being carried out in the historic district of Vegueta in Las Palmas de Gran Canaria, with the potential for replication in other urban environments.

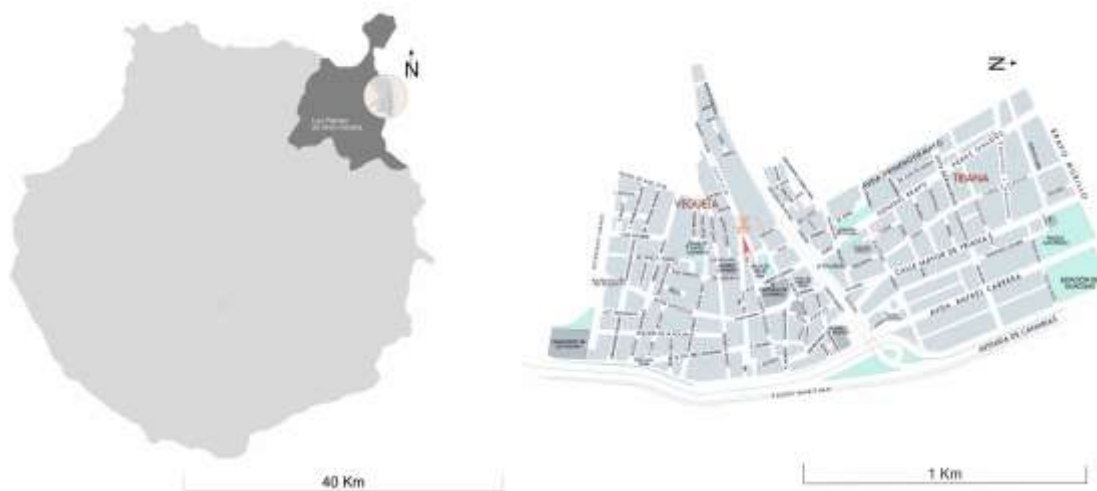
4.1. Selection of the Location and the Project

To create the pilot experience, the location was first chosen. Among the city's neighbourhoods, Vegueta was determined to be the most suitable due to its historical, heritage and urban values,

as it is the founding nucleus of Las Palmas de Gran Canaria and was declared a Historic-Artistic Site in 1973 (see Figure 1). This neighbourhood not only preserves a medieval urban layout with squares, narrow streets, wooden balconies and emblematic buildings such as the Cathedral of the Canary Islands and the House of Columbus but also constitutes an urban landscape that concentrates symbolic values and collective memory that represent part of the city's identity. Likewise, it has recently undergone processes of transformation linked to tourism and the progressive loss of traditional residential uses.

Vegueta offers a privileged laboratory for assessing the extent to which ephemeral projections and dialogue with architecture can reactivate identity links between inhabitants and their environment. In addition, the abundance of public spaces and heritage façades provides an ideal support for immersive interventions that, without physically altering the assets, promote their symbolic reinterpretation.

Figure 1. Location of the Vegueta neighbourhood in the city of Las Palmas de Gran Canaria.



Source: Own elaboration based on the GRAFCAN viewer, 2025

To define the pilot experience, once the neighbourhood had been chosen, the content of the *video mapping* was considered, and it was decided to select pictorial works that could help us achieve the proposed objectives. In this way, we sought out relevant pictorial artists whose work clearly represented the urban landscape of the Vegueta neighbourhood. Among these, José Comas Quesada was selected because his work not only deals with everyday urban landscapes as spaces laden with memory, but also because identity and beauty are central themes in his discourse (Herrera Piqué, 2010).

Throughout his career, Comas Quesada produced series dedicated to the neighbourhoods of Vegueta and Triana in Las Palmas de Gran Canaria, motivated by his desire to represent architecturally valuable places that embodied the living history of the city. He painted *in situ* and *in visu* urban landscapes composed of squares, passageways, traditional balconies, churches and corners that existed and had already been modified or disappeared, using old photographs or personal memories. He was concerned with preserving both the visible and the evocative.

José Comas Quesada's pictorial work dedicated to the urban landscape of Vegueta constitutes a body of work of great identity and heritage value. Among the most representative scenes of the urban landscape in Vegueta are the Plaza de Santa Ana, the Cathedral of the Canary Islands, the Plaza de Santo Domingo, the Hermitage of San Antonio Abad, the Verdugo Bridge, the Holy Spirit Fountain, the Plaza del Pilar Nuevo, the Plaza de San Agustín and the Calle del Espíritu Santo. These works document emblematic corners of the historic city.

Of all the works on the urban landscape of Vegueta, the Fuente del Espíritu Santo fountain (figure 2) has been chosen, as it is one of the most emblematic corners of Vegueta. This space appears not only as an architectural element, but also as a symbol of everyday life: a place for

meeting, shopping and socialising in the historic city. In the artist's work, the fountain regains its identity value by referring to the collective memory of generations who interacted with it in their daily lives. By projecting it onto the urban space using video mapping techniques, the work proposes an exercise in heritage reactivation that connects Comas Quesada's sensitive gaze with current immersive technologies, allowing viewers to experience once again the cultural and symbolic vitality of a partially modified space rooted in the urban identity of Las Palmas de Gran Canaria.

Figure 2. Reproduction of José Comas Quesada's painting Fuente del Espíritu Santo for the pilot video mapping project.



Source: Paintings of the old city of Las Palmas. [Digitised document]. University Library of the University of Las Palmas de Gran Canaria. Digital Memory of the Canary Islands.

4.2. Layout of Technical Materials

The video projector was positioned in the same direction as the urban perspective represented. In this way, the image of the work was projected onto the various elements in the foreground—the fountain, paving and vegetation—and, in the background, onto the buildings. A projector, speakers and a microphone were installed *on site* at the location indicated in Figure 3. A technical description of the equipment used in the pilot test is provided below.

Figure 3. Orthophoto of the Plaza de la Fuente del Espíritu Santo in Vegueta and location of the installation.



Source: Prepared by the author based on an orthophoto from the GRAFCAN viewer, 2025.

The *video mapping* links the present with what is represented in the painting so that visitors can appreciate the differences between what is drawn and what exists. In addition to the pictorial image, other images will be projected, such as portraits of the author of the painting, details of other works by him that help to understand the pictorial work, and elements that identify the landscapes of Vegueta, historical plans of the place, portraits of important figures in the urban history of the neighbourhood, etc.

4.3. AI Element

The project is based on a large language model (LLM), a technology capable of understanding questions asked in natural language and writing coherent and contextualised answers. In our case, the LLM is not used as a creative "oracle", but as a cultural mediator: it listens to the visitor, interprets their intention and offers accessible explanations about Comas Quesada's work and the urban setting.

To ensure accuracy, the model is fed with a specifically curated documentary corpus: artist biographies, heritage records, intervention reports, catalogues, plans, historical photographs and reference bibliographies. These materials are organised with metadata (authorship, date, provenance) and indexed appropriately. Thus, when a visitor asks, for example, about the authorship of a work or the cultural context of the urban environment, the system first retrieves the relevant fragments and only then drafts the response. This procedure corresponds to what is known in AI as RAG (Retrieval-Augmented Generation) (Lewis et al., 2020). In simple terms: the model does not invent, but rather consults the previously selected archive and composes its response by anchoring it to those sources.

Interaction with the visitor is oral. A voice recognition module transforms the spoken question into text, ensuring intelligibility in open environments (ambient noise, reverberation). After formulating the response, a voice synthesis module converts it into clear and natural speech, with appropriate pauses and emphasis for listening in a public square. This two-way interface fosters a closer relationship with the work and its surroundings: the voice comes "from the work and its surroundings" and responds in the first person metaphorically, but always in an informative tone.

Simultaneously, the system coordinates the ephemeral projections (video mapping) with the conversation that is taking place. The painting functions as a key to understanding the place, and the LLM as an interpreter that activates the ephemeral images that help to understand both the painter's gaze and the history, characteristics and anecdotes surrounding the Holy Spirit Fountain.

4.4. Curation of the Documentary Corpus

Once the conceptual framework had been defined and the space for intervention selected, the documentary corpus used to train the linguistic model was curated. This process involved, first of all, an exhaustive review of José Comas Quesada's artistic production and the identification of those works in which the artist represented the urban landscape of Vegueta with a heritage and symbolic approach. Subsequently, complementary documentary sources were compiled—catalogues, critical texts, biography, articles, plans, and historical photographs—to contextualise his work in relation to the evolution of the urban environment.

The *prompt* guiding interaction with the model was carefully drafted to balance, on the one hand, the technical and factual rigour necessary to ensure the reliability of the responses and, on the other, a pleasant, informative and accessible tone that would facilitate dialogue with diverse audiences.

Before being put into operation *in situ*, the system underwent a phase of laboratory testing to evaluate both the adequacy of the responses and the quality of the experience. To this end, controlled trials were carried out with a pilot sample of twelve people, selected from among students and professionals in the fields of art, urban planning and visual communication. The participants interacted with the system in a simulated environment and responded to a short questionnaire that allowed for the evaluation of aspects such as the clarity of the explanations, the relevance of the discourse, and the balance between informative content and informative tone. The comments collected were used to adjust the model's parameters, refine the wording of the *prompts*, and improve the synchronisation between verbal responses and visual projections.

4.5. Dialogue and Projections

Since the aim is for visitors to engage in conversation with the painting, its author, and the existing architectural elements, the system begins by welcoming visitors, presenting and describing its function, and inviting them to engage in a pleasant conversation about the place and the artist's work (see Table 1).

Table 1. Example of a conversation with the introduction offered by the pilot experience system.

System (voice of the Fountain)	Welcome. I can tell you the story of this place and the painting by José Comas Quesada that interprets it. What would you like to know?
Who was José Comas Quesada and why did he paint this fountain?	Visitor
System	José Comas Quesada was a 20th-century painter from the Canary Islands who was very attentive to the light and urban life of Las Palmas. In this work, he captured the atmosphere of the square and the presence of the fountain as the centrepiece of the neighbourhood.
	[Projection: the canvas appears on the façade with a transition from 'sketch→colour'; the silhouette of the fountain is highlighted with a soft outline.
Does what I see in the painting match the current square?	Visitor
System	Essentially, yes, but there are differences. The painting emphasises the geometry of the fountain and simplifies some elements of the surroundings. If you look to your left, you will see changes in the paving and vegetation that are different today.
	[Projection: "before/after" overlay: on the left, a pictorial detail cut out from the painting; on the right, a current photograph; discreet caption: "Comparative guide".]

When was the fountain built and what was it used for?		Visitor
System	Its origin is historical and linked to the everyday uses of water in the neighbourhood. Over time, in addition to its practical function, it came to have symbolic value within Vegueta. [Projection: historical map of the area with a callout to the location of the fountain; caption: "Historical map of the neighbourhood (documentary source)".]	

Source: Own elaboration, 2025.

At the same time, the conversation is enriched by the use of projections on different urban elements, illustrating the concepts and information that arise during the dialogue, see Figure 4. These images are selected from an image bank and synchronised during the conversation. They can be static images or complemented with animations. In addition, the different projection areas in the urban space contribute to a more immersive experience.

Figure 4. Recreation of the projections.



Source: Own elaboration, 2025.

4.6. Survey

In order to analyse the extent to which visitors' perception of the urban landscape was influenced or transformed by the pilot experience, a voluntary questionnaire was developed for participants to complete after the interactive AI projection. The aim was not only to obtain a general assessment, but also to delve deeper into aspects such as the modification of spatial perception, the emotional connection with the place, the assimilation of historical and heritage content, and the acceptance of the innovation of the event created.

The questionnaire was structured around eight questions (Table 2), combining closed items, which allowed quantitative trends to be measured clearly, with open questions, which gathered personal assessments and qualitative nuances. The thematic axes of the survey correspond to four central themes:

1. Perception of urban space. The aim is to investigate whether the experience induces possible changes in the everyday view of the urban landscape and heritage.

2. Emotional connection and sense of belonging. This seeks to measure the intensity of the symbolic bond generated.
3. Heritage learning. This explores the extent to which the activity contributes to a better understanding of the history and cultural values of the environment.
4. Replicability. It gathers assessments of the space as an active interlocutor and interest in extending this experience to other parts of the city.

Table 2. Survey questions to analyse whether the pilot experience influences the perception of the place among the interacting participants.

1. Do you think the experience has changed your perception of this place?
2. Do you feel a greater emotional connection to the space after the activity?
3. Do you think the event has helped you to better understand the history and heritage value of this place?
4. How would you describe your feeling when "dialoguing" with the architecture/projected work?
5. Did you perceive the urban space as becoming an active interlocutor?
6. What elements (visual, auditory, historical) do you consider most relevant to your experience?
7. Would you like this type of experience to be extended to other parts of the neighbourhood/city?
8. To what extent would you recommend this experience to other people interested in culture and heritage?

Source: Own elaboration, 2025

The questionnaire was administered via *Google Forms*, which facilitated both accessibility and speed of completion by participants and the systematisation of data for subsequent analysis. This methodological procedure provided a consistent information base for evaluating the fulfilment of the research objectives and guiding improvements in future implementations.

5. Results

The emotional dimension of this project has been one of its main objectives, which is why the comments and opinions expressed by visitors are of great importance. Participants said they felt "moved" or "reconnected" with a place that, in some cases, was part of their daily lives but which they had taken for granted or become accustomed to. This emotional rediscovery coincides with what has been documented in the literature on light festivals as generators of collective "enchantment" experiences (Lovell & Griffin, 2018, 2022).

Table 3 below presents the results of the survey conducted among visitors after the event.

Table 3. Results of the survey conducted among visitors after the pilot experience.

Question	Responses	Interpretation
Do you think the experience has changed your perception of this place?	Yes: 90% No: 10%	There is a renewed perception of urban space
Do you feel a greater emotional connection to the space after the activity?	Yes: 80% No: 20%	Emotional ties and sense of belonging
Do you think the event has helped you to better understand the history and heritage value of this place?	Yes: 100% No: 0%	Heritage learning reinforced by interaction (De Paolis et al., 2022).

How would you describe your feeling when "dialoguing" with the architecture/projected work?	"Enjoyable because of the dynamics", "a feeling of connection and understanding of my identity as a Canarian", "fun, I laughed a lot", "pleasant and curious", "I'm very interested in AI, so it sparked my interest", "interesting, surprising and original".	Perceptual and dialogical innovation.
Did you perceive the urban space as becoming an active interlocutor?	Yes: 80% No: 20%	Space as an active interlocutor (Işıkkaya, 2023).
Which elements (visual, auditory, historical) do you consider most relevant to your experience?	Visual: 70% Sound: 30% Historical: 70%	The sound component was less relevant, according to comments, due to the quality of the ambient sound.
Would you like this type of experience to be extended to other parts of the neighbourhood/city?	Yes: 100% No: 0%	Potential for cultural and tourist replicability.
To what extent would you recommend this experience to other people interested in culture and heritage?	"Without hesitation," "very highly," "there are aspects that could be improved," "it combines learning with direct experience in an enriching way," "a different and dynamic way to learn about your place," "I've never seen anything like it."	High acceptance with suggestions for improvement.

Source: Own elaboration, 2025.

The survey results reflect the pilot experience's ability to influence perceptions of and connections with the urban landscape of Vegueta. Ninety per cent of participants said their view of the place had changed after the activity, confirming that the immersive and interactive device encourages a reinterpretation of the heritage space beyond everyday life. On an emotional level, 80% said they felt more connected to the site, highlighting the potential of the intervention to contribute to knowledge of the place and its memory. Heritage learning was even more significant: all respondents said they had gained a better understanding of the history and cultural value of the square and its surroundings, confirming the effectiveness of the projected dialogue as a tool for cultural mediation. The innovative dimension was also recognised, with 80% of attendees stating that they perceived the space as an active interlocutor, reinforcing the experimental nature of the project by positioning the free public space and its architecture as an agent of communication. In terms of the components of the tool, the visual and historical elements were rated as the most decisive (70%), while the sound element took a back seat, presumably due to the conditions of the environment. Finally, acceptance was practically unanimous, with comments pointing to both positive surprise and a willingness to replicate the experience in other parts of the neighbourhood and the city, thus consolidating its potential as a cultural and tourist model of urban innovation.

Technological innovation was rated as one of the most surprising elements. The fact that the fountain or painting "responded" to questions asked aloud provoked a sense of strangeness, positive surprise and curiosity. For several visitors, the experience was akin to talking to scholars (the artist behind the work, urban planners or architects) or engaging in dialogue with the history of the neighbourhood. This perception confirms that the interface provided by artificial

intelligence broadens the horizon of possibilities for video mapping by placing the viewer not only as a mere observer but as an active participant.

However, significant limitations were also identified. The design of the pilot, based on intervention shifts, caused some viewers to lose concentration while waiting and not pay attention to the questions asked by others, which reduced the opportunity to generate "shared curiosity." Likewise, the open space introduced technical constraints: ambient lighting affected the sharpness of the projections at certain times, while urban noise made it difficult to hear the audio responses. These aspects point to the need to optimise the implementation conditions in future events. As a suggestion for improvement, we propose complementing the installation with an augmented reality mobile application that would allow spectators who are waiting to have their own channel of interaction.

6. Discussion and Conclusions

The results of the pilot experience confirm that the combination of *video mapping* and artificial intelligence is an effective tool for reactivating emotional and cognitive links between citizens and the urban heritage landscape. The high proportion of participants who reported a positive change in their perception of the place (90%) and a strengthened emotional connection (80%) shows that the intervention is not limited to creating a visual spectacle but also produces a sense of belonging to the place. These findings are consistent with previous literature documenting the ability of *video mapping* to produce experiences of cultural enrichment and re-signification of heritage (De Paolis et al., 2022; Lovell & Griffin, 2018), extending this framework of cultural enrichment towards an interactive conversational dimension hitherto absent in urban heritage contexts.

The heritage learning reported by all respondents reinforces the relevance of the proposal as a tool for cultural mediation. The possibility of "dialoguing" with the work and the environment through a language model assisted by specific sources not only brings rigour to the transmission of knowledge but also turns architecture into an active communicator. In this sense, the experience not only provides educational and heritage value, but also opens up opportunities for cultural and tourist revitalisation for historic centres. Thus, the ephemeral activation of heritage through interactive technologies is emerging as a sustainable alternative in urban contexts subject to processes of touristification and loss of identity (De Souza Sánchez, 2023; Naranjo Henríquez, 2023; Pérez-Hernández et al., 2020), offering ways to recover collective memory and strengthen the sense of belonging.

However, the experience revealed limitations that must be considered for future implementations. The technical constraints of the open space (ambient noise, variable lighting) affected the sharpness of the projections and sound quality at times, partially reducing immersion. Likewise, the dynamics of turns in the interaction limited the sustained attention of certain spectators, pointing to the need to explore complementary solutions—such as augmented reality mobile applications or multichannel interaction systems—that allow for maintaining collective interest and expanding the scope of the experience. These types of immersive experiences can also benefit from interdisciplinary learning methodologies focused on art as a vehicle for appropriation of a place and collective experimentation (De Souza Sánchez et al., 2022; De Souza Sánchez et al., 2023).

As possible next steps and in addition to the survey, the impact of this experience on the population could be analysed using a UGC (User-Generated Content) module that compares, before and after the intervention, geolocated and/or tagged social media posts (#Vegueta, #LasPalmas, #Heritage, #Videomapping). In addition, categories (urban art, urban identity, traditional architecture, urban history, etc.) will be coded to detect opinions linked to the experience (Urquía Uriaguereca, 2025).

The responsive city demonstrates that the integration of ephemeral art, artificial intelligence and urban landscape can become an innovative strategy to reinforce local identity, promote heritage learning and generate emotional ties with the environment. The high level of acceptance

and interest in replicating the experience (100% of participants) points to its potential for transfer to other heritage sites in Las Palmas de Gran Canaria and other cities with similar characteristics. The consolidation of this type of initiative will depend on its incorporation into cultural and tourism policies that are committed to technological innovation and heritage enhancement, transforming the city into an active interlocutor, capable of dialogue with its inhabitants and visitors.

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