Discovering Fairytale Paths: Exhibition Design, Artistic Enhancement, Management and applied data in the conceptual Folk Tale Museum Scenario in Zagori, Greece*

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Abstract

This paper introduces a data-driven conceptual framework for a Folk Tale Museum in Zagori, Greece, a region recently designated as a UNESCO World Heritage site. In this model, museology approaches and interpetates tradition under a different perspective than of a typical folklore museum setting. It uses art and technology as the main filters to shape an interactive and inviting environment, where visitors have the opportunity, through data insights, to affect both narrative and spatial exhibition design choices. Big data's act as a silent co-designer in the envisioned museum, is evident all through the process from development to ongoing curation. This data-driven approach not only preserves and revitalizes Zagori's intangible cultural heritage but also creates a feedback loop where visitor preferences are constantly translated to new information and design aspects. Through this model, the museum becomes a participatory, adaptive space, where visitors take part in the core of its existence.

Keywords

Big Data, museology, folk tale, exhibition design, artistic expression, interactive experience, Zagori UNESCO World Heritage

1. Introduction

Folk tales can be described as colorful vehicles of intergenerational memory. Although they are often considered to be for children, they appeal to all ages due to their dreamlike qualities, which resonate on a primal level, mirroring the human experience. As a means of conveying ideas and transmit cultural values, folk tales excel at imparting life lessons on character, intelligence, and human resilience [23]. Every country has its own fairy tales, while at the same time, there are those which are common to all. In this context the European council created the European Council Fairy Tale Route, a conceptual path linking Europe's tangible and intangible heritage.

Since folk tales are indissolubly linked to our past and offer windows into how our ancestors lived, behaved, and thought, they frequently feature as part of the narrative references in folk life museums. Inevitably, they conform to the representational exhibition design of those museums. Folk life museums still depend largely on the symbiotic relationship between cultural heritage and nostalgia for their popularity. However, with the advent of the digital age, systematic data analysis [5] shows that audiences find little relevance in traditional displays, especially when compared to the impact of new technologies. One of the significant challenges in contemporary museology is the presentation of tradition through more sophisticated and technologically advanced methods to engage the audience in a more effective and intriguing way. Although this call for new approaches

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is particularly pressing for folk life museums, it is part of a broader shift affecting all types of museums.

One of the useful tools in this direction has been the integration of Big Data, which has transformed the ways in which cultural institutions collect, interpret, and disseminate information. The new museum is an information service organization where information regarding the museum collections is equally important to the collections themselves [16].

Museums are transitioning from static repositories of artifacts to interactive environments, offering visitors personalized experiences. This shift began as early as the 1950's, when new forms of Museology emerged as a way to revitalize the educational role of museums. However, it was in the 1970's that discussions about interaction intensified, becoming part of the broader shift in museum theory and practice [29].

Around the same time, in architectural theory, discussions about interactive buildings began. This concept of a new need for a responsive to change built environment, was first articulated as a design strategy by John Habraken in the early 1960s [14]. From then on, flexible architecture becomes a new architectural realm, exploring elements of adaptation, transformation, movement and interaction.

This alignment of views between the two disciplines is not coincidental, as both are human-centered fields, and it was highly expected that they would be influenced by social theories such as social constructionism, which underscore the importance of social dynamics in shaping spaces and experiences. Furthermore, since architectural design in museums takes on a distinctive form where spatial design is integrated with narrative design, the two fields create a perfect blend that nurtures interaction as a fundamental concept.

Museology can be regarded as a 'fortunate field', because its theoretical frameworks find immediate application in spatial design. Additionally, its power as a multidisciplinary field to reflect strongly theoretical changes in the involved fields, reassures evolution and change in spatial museological design concepts and practice.

In this context, the proposed Folk Tale Museum in Zagori, Greece—a region inscribed on the UNESCO World Heritage list for its cultural significance—aims to bridge the traditional craft of storytelling with modern technology, using Big Data as a fundamental driver for innovative museological practices. Big Data not only serves as a means of collecting and interpreting information but also acts as a catalyst for transforming the interaction between art, culture, and the audience.

2. Big Data in Museums

Museums have been transformed from spaces for people, to spaces of people [9]. From object-centered to visitor-centered, engagement and interaction are the new most desired features. This anthropocentric approach developed simultaneously though, with their shifting towards corporate models in their management and since businesses recognize the value of the collection and application of big data, museums do too. As a result, museums increasingly adopt strategies centered on audience insights and data-driven decision-making [13 p.35]. These data-gathering practices, although resource-intensive, allow museums to create tailored experiences and track exhibit effectiveness, ultimately driving visitor retention and operational efficiency.

The common types of data that museums are interested in are shown in diagram 1. Firstly, we have visitor data. This includes information related to demographics, preferences, background and of course feedback (visitors book). Another type is data related to their collections. This includes information about the exhibits and artifacts, like origin, provenance, context, condition, museum placement or storage and more. A third type is operations data, related to practicalities such as stuffing, maintance and funding. A fourth one is marketing data, which gives feedback on the effectiveness and impact of marketing and strategy campaigns. One more important data type museum is interested in, is social media data. Since social platforms are a strong expressive tool, this data type gives a great insight on how visitors engage with the museum on those platforms.

Diagram 1. Most common data types museums are interested in.

Collecting data, gives museums an insight into their visitor's preferences and behaviors and they can do that in various ways, some being more traditional while others more technologically advanced. The most common are surveys and polls, which can give information such as which artifacts are more popular so that they can allow curators to make more targeted and responsive design choices. Surveys in specific have the plus benefit of anonymity, leading to more subjective data. Ticket sales data also provide important operational insights, such as identifying peak visiting hours, thereby enabling more efficient resource allocation, staff scheduling, and crowd management [18]. Additionally, data from museum gift shops, particularly sales of thematic memorabilia related to specific exhibits, offers valuable feedback on visitor preferences.

Contacting interviews, also helps museums gain detailed understanding of the range of how their experiences are received by different audiences. Interview types are defined by their script, leading to strong structured, semi structured and unstructured ones [21]. Observations, on the other hand, provide a rich holistic view upon both visits and development of museum projects and programs. Again, like interviews, they might vary depending on how strict a protocol is set by the observers. Focus groups are another way for data collection. *'They are the evaluator-facilitated discussions that capitalize on the social interactions of group members to generate a deep discussion around a topic'* [21]. The results assist museums to gain a broader look upon visitor's specific needs and wishes. They can be the perfect method to address the needs and wishes of special museum groups, such as children or visitors with disabilities. Recorded conversations amongst visitors, another tool for data collection, can track their discussions at their stay at the museum. As a process it is useful for studying the special aspects of learning in museums.

Besides the more traditional ways to collect data, museums also have others such as:

- **Website Visitor Analytics / Google Analytics**
  Analytics such as how long they stayed in a page or what form of interaction the page visitor has preferred is very easy to be extracted.
- **Mobile App Analytics**
  Applications designed by the museum that can be downloaded by the users can also be a source of data and profiling, especially when the user decides to login to the app via third party social network accounts such as Facebook.
- **Indoor Location Tracking**
  Just like retailers use IoT (internet of things) for indoor location traffic to optimize shopper satisfaction and streamline the shopping experience, museums can also benefit from this with the help of mobile devices to monitor visitor's paths and create heatmaps that reveal popular exhibits, traffic patterns, and less visited areas, all of which can influence the museum's redesign.

In some cases, museums use design and spatial museological programs to collect visitor data discreetly, integrating data collection as a "disguised" feature of the visitor experience [27]. For instance, interactive digital installations or geolocation features within exhibits can provide invaluable insights into visitor flow and engagement patterns without explicit data requests, thus optimizing the overall experience while collecting essential operational data [2].

Big data plays a crucial role in every stage of a museum's development, serving as a "co-design silent tool" that informs decision-making from inception to operation. During the creation phase, it helps identify popular themes, determine the best location, guide exhibition design, and organize artifacts based on visitor preferences. In the operational phase, ongoing data collection provides insights into visitor behavior, allowing museums to tailor programming and improve sustainability efforts. In the following example of Zagori folk tales museum we will witness this useful tool as it takes part in the initial stage of conceptual museological thinking, a process that lays the fountains for museum design.

3. Zagori folk tale museum

Epirus, as stated by Ch. Christovasilis in the introduction to his collection of Epirus Fairy Tales, first published in 1906, "*is the land of gentle winters and sweet summers, where every stone, every ruin, and every hole has its own song, its own tradition, and its own fairy tale.*" Zagori, a region within Epirus, is its most breathtaking part, characterized by striking geology (including two national parks) and its forty-six stone villages, interconnected by mountain roads and traditional arched stone bridges (figure 1) from the 18th century. Each small village follows a design pattern featuring a central square with three basic elements: a church, a plane tree, and a public fountain. Cobbled streets and footpaths connect the rest of the village to this main square.

Long before this region became part of UNESCO World Heritage[2]in September 2023, it was recognized for its architectural monumental value by the Hellenic Ministry of Culture and Sports - Directorate of Antiquities[3]. In an atmospheric place like this, with a dreamlike quality, it was inevitable that people's imagination would go wild and turn into creativity as stated by the extended folklore wall art in most of the Zagori houses[4] and the folktales such as 'liopiro', that thrive with their surrealistic elements, personifications of nature, visual imagery and dream sequences[5]. Zagori's heritage is enriched with myths, songs, traditions, and folk tales. However, this valuable heritage, both tangible and intangible, has not been efficiently disseminated to the public so far[6].

Nonetheless, this is set to change, with Zagori entering the European World Heritage list. In this regard, each initiative toward this direction would be welcomed, adding value to the overall picture. The UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003)[7] emphasizes the importance of protecting non-material forms of heritage, including storytelling traditions, especially in regions where these practices risk being lost due to population decline or modernization (UNESCO, 2003). Folktales are a key component of intangible cultural heritage and therefore, a museum dedicated to them would definitely serve this goal.

A thematic museum dedicated to gathering, presenting, and valuating Zagori's folk tale heritage would certainly employ a complex museological methodology to advance a vision of cultural tourism. By combining folklore with big data, the Zagori museum of folk tales, seeks to create a space where stories can evolve and adapt, much like the oral traditions they are based on. This dynamic

[2]The Cultural Landscape of Zagori is now on the UNESCO World Heritage List following the decision of the 45th Session of the World Heritage Committee in 2023. https://whc.unesco.org/en/list/1695

[3] Regarding the characterization as traditional of the pre-1923 settlements in the wider area of Zagori (Epirus) https://www.nomoskopio.gr/pd_26_9_79.php?toc=0&printWindow&

[4] http://old.ntua.gr/MIRC/db/epirus_db/ARXITEKTONIKH/Zografoi.htm

[5] Sergi G. *Folktales of Epirus*,2008, EN PLO, pp.41-48

[6] It is remarkable that in the whole region there are only seven stated museums with only one of them, Rizarios, being open to the public. https://museumfinder.gr/region/dimos-zagoriou/

[7] https://ich.unesco.org/en/convention

interaction between data and storytelling has the potential to transcend time and place, allowing visitors to engage with folklore not as passive consumers but as active participants in the narrative process. This approach builds on the existing discourse around the participatory museum as a space for dialogue, where visitors are encouraged to engage, interpret, and contribute to cultural narratives [27].

In Zagori, folklore, from folktales to folk drawings, is inspired both by its built (stone villages and arch bridges) and unbuilt environment (nature). Thereby for a museum about folktales, location is of a great importance, because of this special connection. Also, location in architectural terms, involves aspects such as the positioning of a building within location, the variety and possibilities of internal and external views, the distribution of daylight and sunlight, access to the location and to the building and even more. In theory, all of Zagori's picturesque forty-six villages can make good candidates, still there are other issues that need to be taken under consideration such as tourist preferences of them. So, the first critical question would be to indicate the perfect candidate. That is where big data analysis comes to equation, starting with demographic data from national statistics websites like Greece's National Statistical Authority (ELSTAT) and Eurostat, which provide insights into population size, age distribution, and trends across different villages and official tourism websites and online travel platforms like TripAdvisor who analyze big data on visitor numbers, reviews, and popular attractions in various locations. Cultural heritage websites, such as UNESCO's World Heritage Centre, can also offer valuable data about local traditions and folklore, while social media platforms like Instagram and Facebook can help gauge public interest by analyzing big data trends through hashtags and community engagement in groups focused on Greek culture. Geographic Information Systems (GIS) tools, like Google Earth, can visualize geographic and demographic big data, which show accessibility and attractiveness. These diverse online big data sources can designate the ideal location for the folktale museum.

Figure 1: Dovi's stone bridge in Zagori. Photograph by Konstantinos Vassilakis [Public domain], (https:Konstantinosvasilakis.com).

3.1. Narrative exhibition design

The initial questions to be answered regarding a folktale's museum creation are not only the need for a museum like that and the choosing of its location but also its main museological concept.

The main concept of this museum's narrative design is the presentation of traditional Epirus folk tales with a contemporary, hybrid and artistic new way, that has the ability to evolve with time and adjust to new theories, approaches, design styles and technological advances. This kinetic overall design quality can be reached through a concept of presenting one folk tale at a time. The chosen folk tale can act as the main inspiration around of which different arts explore its potential in various terms. The folk tale can change after a certain period and a new one can take its place. The design settings of the new one can then be different featuring another artistic approach and more updated technology. This flexibility deriving from a theoretical concept, gives this museum the opportunity to totally renew its context periodically, giving a permanent exhibition the ability to perform like a temporary one. At the same time and since art is a main feature in this museum, the artistic choices for the upcoming folktale design can be decided based upon data collected out of the previous exhibition visits. An example of how this can be done is by surveys which take place both online and, in the museum, and ask which artist or artists the audience prefers to be engaged in the next folk tale. Another indirect way would be to present museum gift cards with the next theme and different artistic styles and track the most popular ones.

Exhibition design consists of the narrative and the spatial design, which together they shape the overall morph and feeling of each museum. Narrative design derives from thematical research. This is where big data plays a crucial role, providing the necessary flow and categorization of information needed to support the conceptual museological framework. In a museum dedicated to folk tales, this

initial research extends beyond bibliography sources to include interviews and comprehensive ethnological studies. Combining knowledge and evaluation from various sources, including other similar thematical museums, while at the same time setting an algorithmic logic in processing the information given may lead to a broaden look upon the field and help the narrative and spatial designers foster a more broaden perspective which will transition into design and also to connect a regional thematic to other ones in various countries.

One of the most critical parameters in narrative museological design is the selection of the appropriate language with which the museum will communicate more effectively with the average visitor. The average visitor is now defined as the citizen of the world- a person with any background and cultural heritage, for whom the texts and the overall narrative must be not only understandable in terms of a simple translation, but also intriguing and inspiring, in terms of providing opportunities for reflection and fruitful thought, as well as evoke emotions, opening a window to the knowledge and experience of a different culture, in which fragments and elements of their own are reflected. To achieve this goal, the dynamics of big data are utilized, specifically access to aggregated characteristics that provide insight into audience preferences, behaviors, and trends, allowing for the creation of tailored narratives that resonate with diverse visitor demographics.

The multisensory potential of the museum environment is a key consideration in contemporary exhibition design, where the focus has shifted from mere visual observation to immersive experiences that engage multiple senses [15]. Big data enables the development of such experiences by collecting and processing real-time feedback on visitor engagement. This feedback can then be used to adjust the exhibition environment, enhancing emotional and cognitive connections with the content [3].

In the case of the Folk Tale Museum, technologies such as augmented reality (AR) and virtual reality (VR) could be employed to create interactive displays, allowing visitors for example to explore the mythical landscapes described in the featured folk tale. AR projections of folkloric figures could engage with visitors as they navigate the space, guiding them towards specific features. Additionally, images of local elders sharing tales of their ancestors can enhance the immersive experience, fostering a more informal environment where stories are shared between people.

Moreover, the museum could invite guests from other countries to share their own stories, creating a rich tapestry of narratives from diverse cultures. These stories could also be featured on the museum's website, where new interviews and additional materials could be uploaded, creating a global storytelling network, in which our most intimate and ethereal collective memories will find a home. Such an approach reflects the broader movement towards "experiential museums," where the focus is on the creation of a participatory and immersive experience [7].

The ability to track visitor reactions through eye-tracking, facial expression analysis and movement choices provides new avenues for understanding how art and culture are experienced [20]. In the Folk Tale Museum, such data could be used to adjust the narrative flow of the exhibits and to define which narrative parts are the stronger and which are the weakest. This knowledge is very crucial because taking it to consideration, might lead to changes in the flow, the row or they might even affect the choice of exhibits within the epistemic context of course. Special participatory features could also be arranged when for example people are asked to provide a photo or a sketch of the person that used to tell them a bedtime story and then this data and material can turn to a temporary exhibition of the storytellers. These are just a few examples of how people can codesign narrative museological design.

This transformation of the museum from a passive space of observation into an active space of interaction reflects the shift towards participatory museology, where the audience plays a central role in the creation and interpretation of meaning [27].

3.2. Spatial exhibition design

Exhibition design creates spaces where narratives take shape. There is an undefined analogy between the spatial design language of exhibitions and that of cinema. As Tzonos notes, "*The difference*

between exhibition storytelling and cinematic storytelling is that in a museum exhibition, the visitor-viewer moves in front of the static display and acts as the 'camera,' capturing and simultaneously 'projecting' the perceptual material within themselves during the museum visit." [28].

When it comes to interactive environments, their scenography in modern museology is now enriched with multisensory elements, that are part of new museum designing, where the experience is phygital. This approach extended beyond physical space into the digital realm when museums faced the recent global health crisis. Museums as organizations had no choice but to adapt their content and archives to fully online experiences in order to remain open and active [11]. Their goal, however, was not only to stay accessible but also to maintain relevance so that they can antagonize with other forms of entertainment. This drive led to widespread global efforts to create digital versions of their exhibitions, borrowing techniques even from video game design to enhance visitor engagement [6].

In the conceptual framework of the Folk Tales Museum in Zagori, an integrated narrative and spatial design, enhanced by digital features, could cultivate immersive environments. For instance, a traditional Zagori bedroom setting could be transformed into a space where visitors are invited to pause or even recline while listening to a digital rendition of an elder recounting the featured folk tale. This room could differ from the rest of the museum's design, emphasizing a trip back in time. Sound design could provide the room with undertones of natural sounds emanating from outside the house, as well as sounds from within, such as cattle being prepared for mountain tea while the storytelling unfolds. The sound of pottery indicating that the tea is ready could mark the end of each storyline. These orchestrated soundscapes could guide the visit. All exhibits can also be placed as they would be in a real traditional bedroom setting. This choice places them outside an unreachable display logic, making it possible for visitors to touch and feel them, contributing to the designed atmosphere of the room. All objects can be replicas of the originals, providing a fertile and accessible environment for special visitor categories, such as those with visual impairments. Visitors could also choose which other folk tale they would like to experience listening within this environment amongst and their choices are again valuable data to be taken into consideration for the choice of the next museum's folktale theme. This room arrangement in total would evoke a cozy atmosphere reminiscent of a theatrical stage, positioning the storyteller as the focal point of a visit that is both artistically curated and deeply engaging, while at the same time presenting the visitor as the special quest.

Another interesting way for interaction and collection of data from the museum's visits is to incorporate a permanent spatial educational game at the end of each exhibition. This game might reflect aspects of the conceptual exhibition design and be directed in such way as to provoke visitor's reactions and thoughts upon fruitful questioning deriving from the narrative. The underlying concept behind its creation is quite simple and does not differ from the concept of measuring visitor's satisfaction, in a retail setting, regarding the services provided. However, the significant difference in the case of museums is that this can be achieved through a well-designed game that not only measures the level of visitor satisfaction but also seeks their perspective in order to record it for future analysis. Furthermore, it can stimulate further thought by posing a museological question. A division of this kind in the conceptual framework of the Folk Tales Museum in Zagori could be centered around gathering individual valuable information which can vary from simple reports and yes or no answers to full storytelling deposits. Tracking their facial expressions and translating them to feelings is another way of gathering more valuable information.

The total gathering of personal views and reactions from a visit can then turn into design features. In the folk tale museum, they can be translated as variations of light or sound giving an extra layer of information upon the design of given environments. In this context visitors are co-designing environments, living back their own personal artistic footprint. This kind of interaction based on visitor's mental footprint goes beyond the intentions of plain interaction with a building based on movement.

4. Artistic enhancement in Zagori folk tales museum

Folktales are linked with their illustrations, which bring the abstract or fantastical elements into a tangible form. Together they bring a unique blending of tangible and intangible heritage. Illustrations on the other hand have been following the art movements[8], being influenced by them, using the same language, sharing the same qualities. Thereby a museum dedicated to Folktales has to perform within an artistic frame.

Also, Folk art in general, expresses the traditions and customs of a human group and it's not limited to paintings, songs, dances, legends or beliefs. All these elements come into play (Witek, 2023). Thereby, a folktale museum, interlinked with its folk art and illustrations is actually an art museum, with all the implications deriving from this realization.

Spatial exhibition design in museums is subject to the principles of design that apply across all fields of applied arts. In fruitful alliance with museological graphic design a unique blending can lead to remarkable design aesthetics, to accompany its artistic elements.

Graphic design visually communicates the messages inherent in conceptual museological design [30]. More specifically, it is employed to create associations, shape accompanying texts, guide the exhibition path through signage, emphasize particular points, and convey the style of conceptual museological design [12]. Exhibition design provides the frame work that graphic design enhances with informational content. Graphic curation takes into account shapes, distances, heights, directions, and the stylistic elements of exhibition design to produce accompanying material, thereby creating a cohesive and unique overall experience [6].

Art on the other hand is incorporated in most museums partly, for it seems to be a clear division between art museums and the rest of museums. Diane K Murphy, a digital production coordinator in Fine Arts Museum of San Fransisco, states that: '*as art forms radically change over time, the spaces in which they are displayed do not.'* This perspective reflects a historical overview of museum trends in which the white cube strategy endures as the preferred spatial configuration for contemporary art displays. There are also black wall displays and warehouses which are again pointing towards an intended blank space for art pieces. There is also though the black cube. Black Cube is a nonprofit, experimental art museum that nurtures the self-sufficiency of artists and inspires people to discover and appreciate contemporary art beyond traditional white museum and gallery walls. One way of performing this museological idea is by displaying digital art forms.

The fundamental question posed indirectly through his experimental designs by the renowned Pompidou team architect Richard Rogers—"How do we integrate contemporary art within interior museum spaces?"—remains unanswered. However, some indications do exist. One such indication is to consider the exterior form and interior design of a museum's space as part of a larger conceptual framework that encompasses the primary narrative idea. Nonetheless, this concept may not always find opportunities for materialization due to practical and unresolved issues, such as an existing building form that cannot be altered. In such cases perhaps there are specific visual communication tricks to achieve a connection. The main issue with having one primary design concept resembles a mathematical problem, where each variable, constant, and parameter must be meticulously considered and balanced, in order to be solved. Sometimes there are even more than one solution. Still the end result is one.

Another aspect for consideration is that art pieces are typically displayed in blank white gallery spaces. However, when an art piece becomes part of another environment, it initiates an open visual and semiotic dialogue with that context. While this interaction can sometimes be a welcomed and intentional aspect of exhibition design, it may not always be desirable. At the same time, museum curators often seek art pieces that can seamlessly integrate into their exhibition concepts.

In the case of the Zagori Folk Tales Museum, one way to materialize its concept would be to use the white cube museum framework. An example of displaying folktales as art in a gallery context is

[8] chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://twu-ir.tdl.org/server/api/core/bitstreams/ca20cff4-2084-4069-b79b-9bd8deb134ae/content

the exhibition of newly commissioned works at the Contemporary Jewish Museum titled *Jewish Folktales Retold: Artist as Maggid*[9] (Figure 2).

A second scenario would be for art pieces to be created within a specific context that aligns with the overarching museum theme and complements both the exhibition and graphic design. This collaboration requires teamwork, where each partner—the artist, the graphic designer, and the architect—works together on the same project while operating within their own creative contexts. Frequent communication among team members is essential to ensure that they remain relevant and aligned with the main visualized idea.

In design, a brief provides a rough outline of a project's direction. It can help clarify the scope, aims, and objectives for the various parties involved in the development process [25]. The design approach in the conceptual case of the Zagori Folk Tales Museum should be holistic, and one very important factor in making this possible is the alignment of the personal styles of the artists involved.

A special key within the brief is definitely the design language that already exist and is related to those folk stories. This language derives from the art of hionadites and kapesovites folk painters. This painting movement, which was part of a wider decorative practice within the Ottoman Empire, is defined by an effort to go beyond local styles. Many scholars have pointed out that a "shared" visual language emerged within the empire, blending European influences with Ottoman decorative traditions. This hybrid decorative system, consistent across the Balkans and Asia Minor, became dominant regardless of the users' nationality and reflected the tastes of the growing urban class. The documented artwork from the Zagori region shows that its painting is a part of this larger "shared" artistic expression (figure 2).

[9] https://www.squarecylinder.com/2017/12/jewish-folktales-retold-cjm/

Figure 2: Jewish Folktales Retold exhibition, (https://www.squarecylinder.com/2017/12/jewish-folktales-retold-cjm/)

Figure 3: Wall art from a house in Kapesovo, by local painter Peter Fitsios, (public domain), printed in 2018 Callendar by the cultural association of Kapesovo

One approach to the design would involve creating new forms that merely reflect the traditional artistic language. Another option would be to develop hybrid artistic guidelines that blend both traditional and contemporary elements. Alternatively, the design could completely disregard the traditional language in favor of a more innovative approach. All of these strategies can be valid, provided they are equally well-presented through the museum's exhibition design, art, and graphic design, working cohesively to create a unified and compelling narrative [25], [1].

One particular form of art, landscape photography, can be deeply integrated into the exhibition design. Zagori represents a strong cultural unity, where all elements—both intangible, such as stories, and tangible, such as the physical landscape—exist in a unique, interconnected relationship, much like the relationship between cause and effect. This interplay of narrative and place can enhance the exhibition's storytelling, using photography to visually represent how the region's landscape shapes and reflects its cultural heritage.

Furthermore, the involvement of landscape photos and big data can lead to cultural mapping. This can be achieved through the employ of Geographic Information Systems (GIS) to map out the locations significant to the folk tales of Zagori. By combining this data with landscape photography, the museum can illustrate how these tales are grounded in the physical landscape of the region. Then the visualization of this data, can actually take a physical form in the museum, as an architectural 3d model of the region, a tactile map, also easily accessible by visually impaired visitors[10]. These maps can also display static satellite images, elevation details, habitat, geological regions, or any other type of data visualization (figure 4). This element can be co presented with landscape photographs and work together to provide a gallery setting.

[10] https://www.youtube.com/watch?v=2COr4RWJkkM

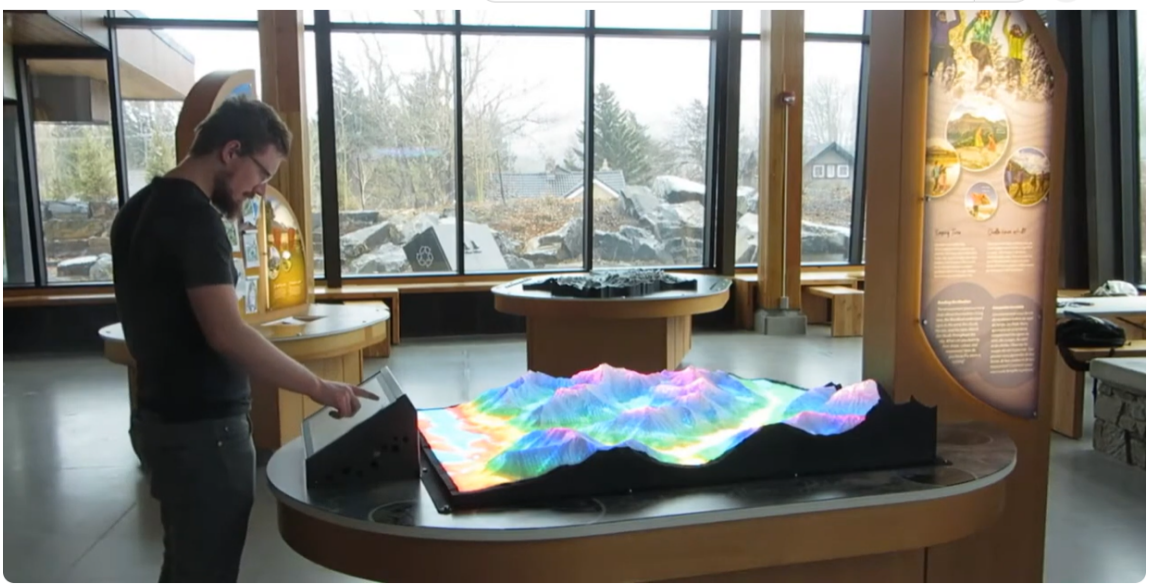


Figure 4: cartographic display (https://tactileterrain.ca/products/)

Art can be presented in a museum not only through its exhibitions but also through its programs and artist residencies. By inviting artists from various fields related to storytelling, the museum can foster a dynamic artistic environment where ideas, insights, and artistic skills are shared. This inclusive approach allows for the involvement of storytellers, musicians, theatrical groups, shadow puppeteers, and illustrators, all of whom can contribute to the conceptual framework of the Folk Tales Museum. Such collaboration creates endless opportunities for special events, workshops, and community projects that enhance the visitor experience and deepen engagement with the region's cultural narratives [1].

At this point it is essential to clarify that these initial thoughts are very important since they point at the type of the museum and the specific overall approach that is preferable. The specifications of the design are being clarified and finalized as the museological process develops. Those general design guidelines though, are the fountains of the final project both in architecture and in museology. A museological example where these guidelines find appliance would be the exhibition 'Fables for our time', by the Design Museum[11]. This exhibition as stated in the website, features three artworks.' *Each artwork in the display consists of three layers: the foreground for storytelling, the midground for depicting environments in friezes, and the background offering a glimpse of another world. The three scenes are presented as contemporary folktales, with narrators in the foreground who advocate for the primacy of natural systems in the human story. Each of the panels is made up of hundreds of emoji in a mosaic-like pattern, or a pixelated form of cross-stitch embroidery. The emoji represent both natural systems and human ones, from cells and species to pesticides and waste.'* (Figure 5).

[11] https://designmuseum.org/fables-for-our-time

Figure 5: Fables for our time, exhibition, the Design Museum (https://designmuseum.org/fables-for-our-time)

This exhibition is an example of integrating art, storytelling and information within a contemporary context. It is also an example of how design concepts are distributed. The narrative design concept unfolds in three layers of information, the exhibition design concept is presented through interactive screens, where the artistic concept is performing in alliance with both of them.

In the Zagori folktale museum narrative design concept is centered around a model of changing folktale themes and exhibition design concept is focusing on the adaptation of new technology, new design trends, data utilization, active engagement with visitors, art and new readings upon folk illustration and design techniques.

Managing Zagori folk tales museum

Museums, as institutions, are often perceived through their two main functions: to educate and to entertain. Their educational dimension, which falls under non-formal education, is mainly supported by specially designed educational programs. At the same time, their entertaining dimension evolves into a safety net for their commercial future as institutions. More and more museums are adopting

corporate practices and marketing strategies in their efforts to remain viable, with the ultimate goal of becoming more popular. Adopting a marketing orientation reflects their decision to focus on the public. Learning to harness social media, asking for public's evaluation and opinion on their displays, their services, their choices and featured events, encouraging visitors to advertise their presence in the museum, are all tactics to encourage the dialogue with the audience. Soliciting people's opinions makes these institutions more accessible while simultaneously ensuring valuable information and data that can be used in favor of the museums.

The application of Big Data in museums is part of a broader trend where cultural institutions leverage digital technologies to deepen their engagement with audiences [4], [10]. Data collected from visitor behaviors, interactions, and preferences can inform management decisions and enhance operational strategies. Social media serves as a powerful tool for museums to promote their content and maintain communication with visitors.

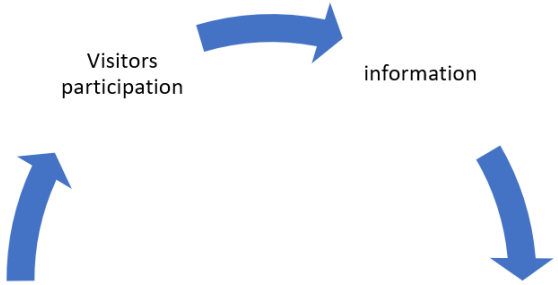
In the envisioned museum, the official website could link to a dedicated platform featuring social media elements. This platform would not only facilitate communication between the museum and its visitors but also foster interaction among visitors themselves. They could be invited to upload related materials connected to the museum's exhibitions or share their own videos from visits to the museum or the Zagori region, providing valuable insights for prospective visitors.

5. Conclusion

Museums like companies want to know their clients' preferences so that they can make choices and adjustments for better performance. Better performance means more income and more independence. More income translates back to better performance, while more independence allows museums to take creative risks, explore diverse, unconventional themes, even engage in innovating programming that may not align with the priorities of traditional funding sources. In essence, it empowers them, and since museums are not anymore for people but of people, it empowers people. And that is the greatest impact that the integration of big data as a museological tool, can have in any museum.

Peter Sondergaard, Senior Vice President and Global Head of Research at Gartner, Inc. once said, "*Information is the oil of the 21st century, and analytics is the combustion engine.*" The primary motive for collecting data in museums is to forge a deeper connection with the audience[12].

The audience's participation in the conceptual Folk Tale Museum in Zagori is linked with the integration of Big Data in it. The data flow within this museum, as seen in diagram 1, establishes a dynamic cycle in which initial informational materials in the form of interviews and research, are processed to create the narrative museological design. This design is subsequently transformed into exhibition layouts, augmented by artistic and graphic design, influenced by people's choices and integrated with technology to encourage their participation. Participation patterns are being evaluated to adjust exhibition design once more. The information gathered from this active engagement altogether feeds back into the initial archive, completing the cycle and enhancing the overall experience of the museum.



[12] https://w

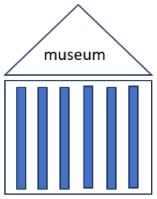


Diagram 2. Dynamic Data Flow in the conceptual model of Zagori Folk Tales Museum

As big data continues to reshape the field of museology, it offers new possibilities for the creation of interactive, responsive, and emotionally resonant cultural experiences. The Folk Tale Museum in Zagori, as envisioned in this paper, serves as a case study for the potential of big data to revolutionize how we engage with art, culture, and history in the digital age.

Declaration on Generative AI

The author has not employed any Generative AI tools.

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Online Resources

1. https://epirusgate.gr/h-zografiki-ton-spition-tou-zagoriou-istoriki-kai-politismiki-prosengisi-apo-ton-stefano-tsiodoulo/
2. https://vdbg.com/blog/what-is-interactive-architecture/
3. https://blog.artsper.com/en/a-closer-look/the-importance-of-art-in-folklore/
4. https://mapsted.com/blog/museum-big-data-explained