

# Experiential graphic design in rural tourism: A model for navigation, identification, and experience

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## Abstract

*Purpose* - This study aims to investigate how Experiential Graphic Design (EGD) can enhance sustainable rural tourism by improving spatial communication, strengthening cultural identity, and fostering emotionally engaging visitor experiences. It introduces the Navigation–Identification–Experience (NIE) framework as a conceptual model for integrating EGD into rural tourism planning.

*Methodology/Design/Approach* - The research draws upon theoretical foundations from Kevin Lynch’s spatial legibility, Yi-Fu Tuan’s topophilia, and Edward Relph’s notions of place and placelessness. Three award-winning EGD projects—Borough Yards (UK), Beyond Wayfinding (USA), and Forest Net(work) (USA)—were analyzed to extract design principles applicable to rural contexts. A design-based simulation was then developed for Lefke, a culturally rich but under-communicated rural town in Northern Cyprus, to demonstrate the practical implementation of the NIE framework.

*Findings* - The analysis shows that EGD functions both as a practical communication system and as a cultural interface. It enhances orientation and spatial clarity, reinforces local heritage and identity, and creates immersive, participatory experiences for visitors. The simulation in Lefke demonstrates that employing vernacular symbols, sustainable materials, and community-rooted narratives can transform rural environments into meaningful, experience-driven destinations.

*Originality/Value* - This study offers one of the first structured attempts to adapt urban-derived EGD design knowledge for rural tourism development. By proposing the NIE framework and demonstrating its applicability through a design-based simulation, it provides a transferable, practice-oriented model that can guide policymakers, designers, and rural communities in shifting from passive tourism consumption to deeper, place-based engagement.

**Keywords:** Experiential Graphic Design, Rural Tourism, Cultural Resilience, Spatial Communication, Environmental Psychology, Place Identity

## Introduction

The tourism industry is one of the fastest-growing and most competitive sectors in the global economy (Alatawi et al., 2023). It is widely recognized as a powerful driver of cultural exchange and economic development (Nikolova, 2021). Contemporary tourism trends, especially in the aftermath of the COVID-19 pandemic, indicate a significant shift: travelers now seek immersive, meaningful, and emotionally resonant experiences rather than simply visiting destinations (Goncu & Kamasak, 2024; Stqry, 2025). Rural regions are increasingly trying to leverage their unique assets—such as natural landscapes, historical architecture, and traditional lifestyles—to attract visitors. However, despite investments in restoration and heritage conservation, many rural areas struggle to provide compelling experiences for tourists (Kausar & Nishikawa, 2010; Paiva et al., 2025).

In this context, the communicative capacity of space—how physical environments guide, inform, and engage people—has become a key focus for rural tourism development. This paper introduces the term *spatial*

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*communication* to describe how environments convey meaning and aid orientation using architectural features, visual cues, signage, and graphic systems. As tourists increasingly look for seamless and meaningful experiences in unfamiliar areas, the clarity and expressiveness of these spaces are crucial in shaping their perceptions and behaviors. While architecture provides the structural foundation for a place, it often lacks the visual clarity and narrative depth needed to effectively engage diverse groups of tourists, especially in rural areas where built environments may be scattered or underdeveloped (Li et al., 2024). This limitation highlights the growing importance of environmental design as a strategy to translate local identity and cultural codes into accessible visual languages.

The term Environmental Graphic Design (EGD) has traditionally referred to the integration of visual communication within architectural and spatial environments to enhance visitor experiences and contribute to cultural resilience, enabling communities to preserve their identity amid modernization, tourism, or depopulation (Calori & Vanden-Eynden, 2015). However, the design industry—particularly organizations like SEG—has more recently embraced the term Experiential Graphic Design. This change reflects a growing focus on user-centered, sensory-rich, and narrative-driven experiences. This study adopts the term Experiential Graphic Design (EGD) because it more accurately captures the immersive and participatory aspects explored in this research.

Environmental or Experiential Graphic Design (EGD) is a multidisciplinary field that combines graphic design, architecture, interior design, and industrial design to enhance how people interact with physical spaces. It emphasizes the creation of intuitive experiences through elements such as signage, wayfinding systems, and branded environments (Stevens, 2025). Despite its widespread use in urban areas like museums, airports, and campuses, the potential of EGD to enhance rural tourism—especially in developing visitor-friendly and culturally expressive environments—remains significantly underexplored in academic literature.

This study suggests that Experiential Graphic Design (EGD) can serve as a strategic tool for enhancing rural tourism development. It offers solutions across three interconnected dimensions: navigation, identification, and experience. By conducting a qualitative review of award-winning EGD projects, the research identifies transferable design principles that can promote cultural sustainability and enhance spatial experience in rural settings. The objectives of this paper are threefold: (1) To explore how spatial communication and visual design can meet the changing needs of rural tourism, (2) To examine global best practices in Experiential Graphic Design (EGD) that illustrate these principles, and (3) To propose a conceptual model for incorporating EGD into rural tourism planning, promoting long-term cultural resilience and enhancing visitor engagement. This paper offers a fresh perspective on both tourism and design research by viewing graphic design as a cultural interface rather than merely a functional tool.

## Literature Review

### Tourism in Rural Contexts

The tourism industry is one of the fastest growing and most competitive in the global economy (Ranasinghe et al., 2021). Governments and administrators aim for precise and strategic planning. Particularly in developing nations, one of the main motivations for a region to present itself as a tourist destination is the anticipated economic growth (Sadeghi & Seidaiy, 2024).

Lane (2009) defined rural tourism as being located in rural areas, built upon the rural world's special features of small-scale enterprise, open space, contact with nature and the natural world, heritage, traditional societies and traditional practices, usually small-scale both in terms of buildings and settlements, and having a traditional character. Rural tourism depends on the characteristics of the region where the tourism activities take place. These characteristics can be classified as historical, natural, recreational, pilgrimage, industrial, scientific, sports, therapeutic, exhibitions and other natural factors such as weather, soil, and mineral resources.

Research indicates that the urban population is expanding globally, and it is predicted that by 2050, around 86% of the world's population will be urban dwellers (Statista, 2024). According to recent data from Future Market Insights (2025), the international rural tourism industry is expected to grow to USD 32.1 billion by 2025 and reach USD 67.8 billion by 2035. The key factors driving the growth of the rural tourism industry

were described in the research as increasing demand for authentic cultural experiences, government initiatives supporting rural economies, and advancements in digital travel platforms (Soták-Benedeková et al., 2025). Travelers are increasingly seeking eco-friendly accommodations, farm stays, and off-grid retreats that support environmental conservation and local economies due to the declining conditions of urban life.

Consequently, rural tourism has emerged as a primary focus for many rural areas, with efforts primarily aimed at enhancing the quality of tourist accommodations and utilizing information and communication technology to restore, protect, manage, and promote the rich natural and cultural heritage.

The World Tourism Organization (UNWTO, 2025) understands rural tourism as "a type of tourism activity in which the visitor's experience is related to a wide range of products generally linked to nature-based activities, agriculture, rural lifestyle/culture, angling and sightseeing." Nowadays, consumers are more concerned with the journey's experience than the destination's attractions (Nikolova, 2021). However, limited attention has been given to how visual communication systems impact this experience, particularly in non-urban areas. Creating immersive and cohesive spatial environments that draw in and keep visitors in these regions requires more than just infrastructure improvements.

### **Spatial Communication and Experience**

The concepts of spatial communication and place experience have been thoroughly examined in urban design, environmental psychology, and human geography, each providing insights into how people understand and interact with built environments (Hu & Chen, 2018; Gifford et al., 2011). The activity of exchanging information to locate an object and/or a person is referred to as spatial communication (Gamelin et al., 2021). People all over the world learn and process information in similar ways based on such things as visual perception, categorization, analogy, automatization, working memory, and cultural learning (Tomasello, 2008).

In urban design, spatial communication refers to how physical space conveys meaning and intent through architectural cues, pathways, sightlines, signage, and spatial hierarchy. These elements contribute to a space's legibility. Kevin Lynch (1960) introduced the concept of space legibility to explain how easily people can comprehend and navigate urban environments. Lynch emphasized the importance of landmarks, edges, nodes, paths, and districts in creating spatial experiences that are both easy to understand and emotionally engaging.

Environmental psychology explores how individuals form emotional and psychological bonds with spaces, a concept known as place experience. Scholars like Yi-Fu Tuan (1990) and Edward Relph (1976) highlight that place experience results from a complex interaction of sensory perception, personal memories, symbolic significance, and cultural background. Tuan's concept of *topophilia* refers to the emotional connection between people and places. This concept emphasizes how our attachment to certain locations develops through visual, sensory, and cognitive experiences with the environment. Tuan further explains that places become meaningful not only because of their physical features but also through how individuals interpret and emotionally relate to them. Relph expands on the idea of place versus placelessness. Relph argues that authentic places have a unique identity, a deep history, and a strong sense of belonging. In contrast, placelessness describes spaces that lack these qualities, often due to standardized, commodified, or anonymous development. According to Relph, environments that become overly uniform or functional lose their ability to inspire meaningful human connections. This idea is especially important in rural tourism, where maintaining local identity and character is vital for creating immersive experiences for visitors.

Building on these foundations, the concept of cultural resilience provides a broader perspective for understanding the social value of place attachment. Cultural resilience refers to a community's ability to sustain, adapt, and regenerate its cultural identity and practices in response to social, environmental, or economic changes (Ungar, 2012). In rural areas, this involves preserving local traditions, languages, symbols, and place-based knowledge, even as tourism and modernization transform the environment (Rotarangi & Stephenson, 2014; Beel et al., 2017). In the context of this study, cultural resilience is viewed as a crucial outcome of experiential graphic design based on identification. This design approach visually encodes and

communicates cultural values, thereby enhancing community cohesion and fostering intergenerational continuity.

Tuan and Relph's theories highlight that space is not neutral; it is highly communicative and emotionally powerful. Their insights show that the built environment acts as a medium for communication, delivering both practical information and cultural stories. In rural tourism, where clarity of space and accurate cultural representation are often missing, these ideas emphasize the potential of Experiential Graphic Design (EGD). By enhancing navigation and building emotional connections for visitors, EGD can help create a more engaging and sustainable tourism experience.

### **Experiential Graphic Design (EGD)**

Experiential Graphic Design (EGD) is a discipline that centers on integrating visual communication into the built environment (Petković et al., 2025). It employs elements like signage, typography, maps, symbols, colors, and digital media to enhance orientation, identity, and storytelling. EGD plays a vital role in enhancing legibility by offering visual navigation tools like interpretive signage, maps, branded trail markers, and orientation boards. These aids help visitors develop a clear understanding of the space. By improving visual clarity and spatial awareness, EGD not only supports effective wayfinding but also fosters a more engaging and meaningful visitor experience (Passini, 1992; Utoyo & Thin, 2023). EGD can be described as the integration of the communications and architectural professions (Petković et al., 2025). It also plays a vital part in strengthening and expanding brand experiences. When applied thoughtfully, EGD acts as a tool for visualizing cultural memory, engaging communities, and fostering socio-spatial continuity.

Kevin Lynch (1960) argued that an individual's ability to create cognitive maps of their surroundings relies on the clarity of spatial elements like paths, landmarks, edges, districts, and nodes. When these elements are visually distinct and logically organized, they help users orient themselves, understand spatial relationships, and navigate confidently. Although Lynch's framework was originally created for urban environments, the concept of legibility is equally important in rural tourism settings. In these areas, unfamiliarity, scattered landmarks, fragmented landscapes, organic settlement patterns, and diverse cultural typologies can make visitors feel lost. Despite their rich historical and ecological assets, rural areas often suffer from visual incoherence, informal spatial layouts, and limited resources for implementing sophisticated environmental graphics.

Most research and professional practice in Experiential Graphic Design (EGD) have focused on urban and institutional settings, including airports, hospitals, museums, transit hubs, and university campuses. However, the potential of EGD in rural or low-density areas is still largely underexplored in both academic and design literature. Moreover, academic literature has largely treated rural tourism through the lenses of heritage preservation, agritourism, or economic development, with little attention paid to visitor orientation, spatial identity, or graphic communication as tools for enhancing the rural tourist experience.

Recent studies on environmental graphic design (EGD) in rural tourism, such as those conducted by Zhang et al. (2024) and Liu et al. (2023), have started to highlight the importance of visual communication in enhancing spatial experiences and cultural identity in rural areas. However, these studies tend to be limited to localized case analyses, focusing primarily on specific villages in China, and often emphasize aesthetic interventions like murals or decorative signage. While these contributions are valuable, they typically lack a comparative scope, a systematic theoretical framework, and generalizable design principles that can be applied across various rural contexts. Additionally, their foundations in urban EGD theory or place-based environmental models remain underdeveloped.

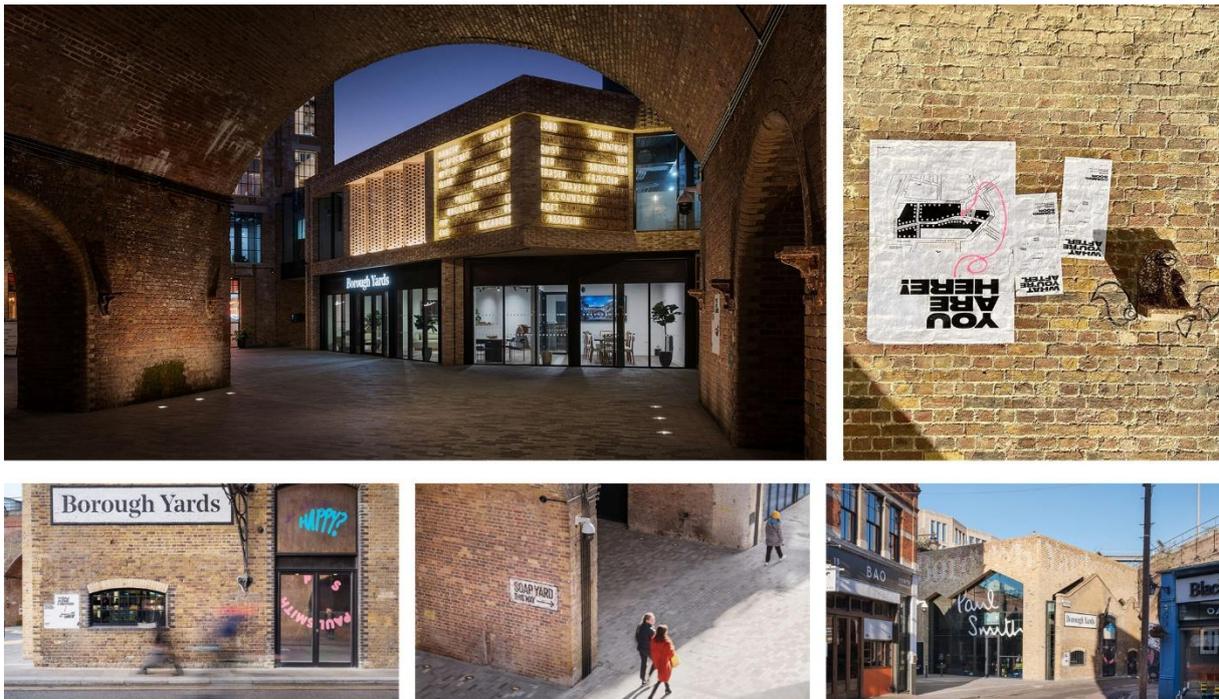
This study addresses existing gaps by providing a comprehensive and globally informed framework that places Experiential Graphic Design (EGD) within the broader context of spatial communication, wayfinding, and cultural sustainability. Drawing on award-winning international projects and established theoretical foundations, such as those of Kevin Lynch (1960), Yi-Fu Tuan (1990), and Edward Relph (1976), the paper proposes a triadic model consisting of Navigation, Identification, and Experience for integrating EGD into rural tourism development. In doing so, it connects urban design theory with rural applications. It redefines EGD not merely as a visual enhancement but as a strategic tool for creating meaningful, understandable, and

emotionally engaging tourism environments. This approach offers a flexible model that rural regions worldwide can adopt to improve both visitor experiences and cultural continuity.

Three internationally recognized Experiential Graphic Design (EGD) projects were selected as precedents rather than field studies, based on several key considerations. These included their demonstrated ability to enhance spatial experience and wayfinding, the integration of cultural or historical narratives into visual communication, the use of sustainable and context-sensitive materials and techniques, and their recognition on professional design platforms such as the SEG D Global Design Awards. Based on these criteria, three cases were chosen: Borough Yards (UK), which exemplifies placemaking through layered historical narratives and wayfinding; Beyond Wayfinding (USA), which highlights culturally grounded signage and storytelling within a campus setting; and Forest Net(work) (USA), a temporary EGD installation that promotes ecological awareness and communal participation.

### Case Study: Borough Yards (London), EGD in the Historical Region

Borough Yards, designed by SPPARC, is a new mixed-use redevelopment next to London's Borough Market, turning a Victorian warehouse and railway arches into a network of lanes, public spaces, shops, offices, restaurants, and a cinema (RIBA, 2023). Borough Yards received a Merit Award in SEG D's 2023 Placemaking category for its innovative wayfinding approach, referred to as "wanderfinding" (Callaghan, 2021). Placemaking interventions come in various scales, ranging from minor signs that highlight pedestrian-friendly areas to subtle branding at Paul Smith that harmonizes with the surrounding neighborhood and Borough Market. A notable feature is the four-story ghost sign at Soap Yard, which helps blur historical boundaries. Paper posters affixed to brick walls provide an effective wayfinding solution, aligning with the branding while addressing post-pandemic retail challenges (Fig. 1). Historical brackets from the site were decorated with whimsical figures. These 'gargoyles' are popular among the public and have gained a significant following on social media.



**Figure 1.** Placemaking interventions of Borough Yards. © 2021 Simon Callaghan. Source: Simon Callaghan, Borough Yards. 10 2021. <https://segd.org/projects/borough-yards/> (accessed 7 7, 2025).

This system encourages users to explore intuitively, guided by a combination of neon signage, ghost-painted historical lettering, seasonal posters, and unique sculptural brackets. These elements are strategically layered across different spatial scales, from prominent facades to subtle interior cues, allowing visitors to gradually and contextually orient themselves. The navigation system becomes an integral part of the overall experience, fostering a sense of familiarity and encouraging repeat visits.

This approach has important implications for rural tourism, where visitors often face unfamiliar landscapes, scattered points of interest, and limited signage. By implementing narrative-driven wayfinding systems like those used in Borough Yards—featuring context-sensitive materials, story-driven graphic elements, and adaptable visual hierarchies—rural areas can significantly improve their navigability and enhance visitor engagement. Even in regions without dense architectural features, experiential graphic design (EGD) can be utilized through totems, landmarks, trail signs, and local artistic expressions to facilitate intuitive navigation while reinforcing the identity of the place.

Borough Yards illustrates how navigation can go beyond simple directions, becoming a sensory and cultural journey. This idea is especially helpful for rural places wanting to provide more than just access, but also a feeling of discovery and community through careful design.

### **Case Study: The University of Hawai, Beyond Wayfinding**

Beyond Wayfinding at the University of Hawai'i at Mānoa is a bilingual signage and interpretive system that turns wayfinding into a way to share culture and reinforce place identity (SEGD, 2022; Global Design News, 2024). The Life Sciences building sign and its medallion are part of a campus-wide system where each sign is labeled with the name of the "ili" (land division) it represents. The medallion features a pu'u (small hill) that points toward Le'ahi (Diamond Head) and is designed to highlight significant natural features around the campus. The new campus map outlines these divisions and connects the medallions to the building signs, improving navigation and situational awareness (Fig. 2).

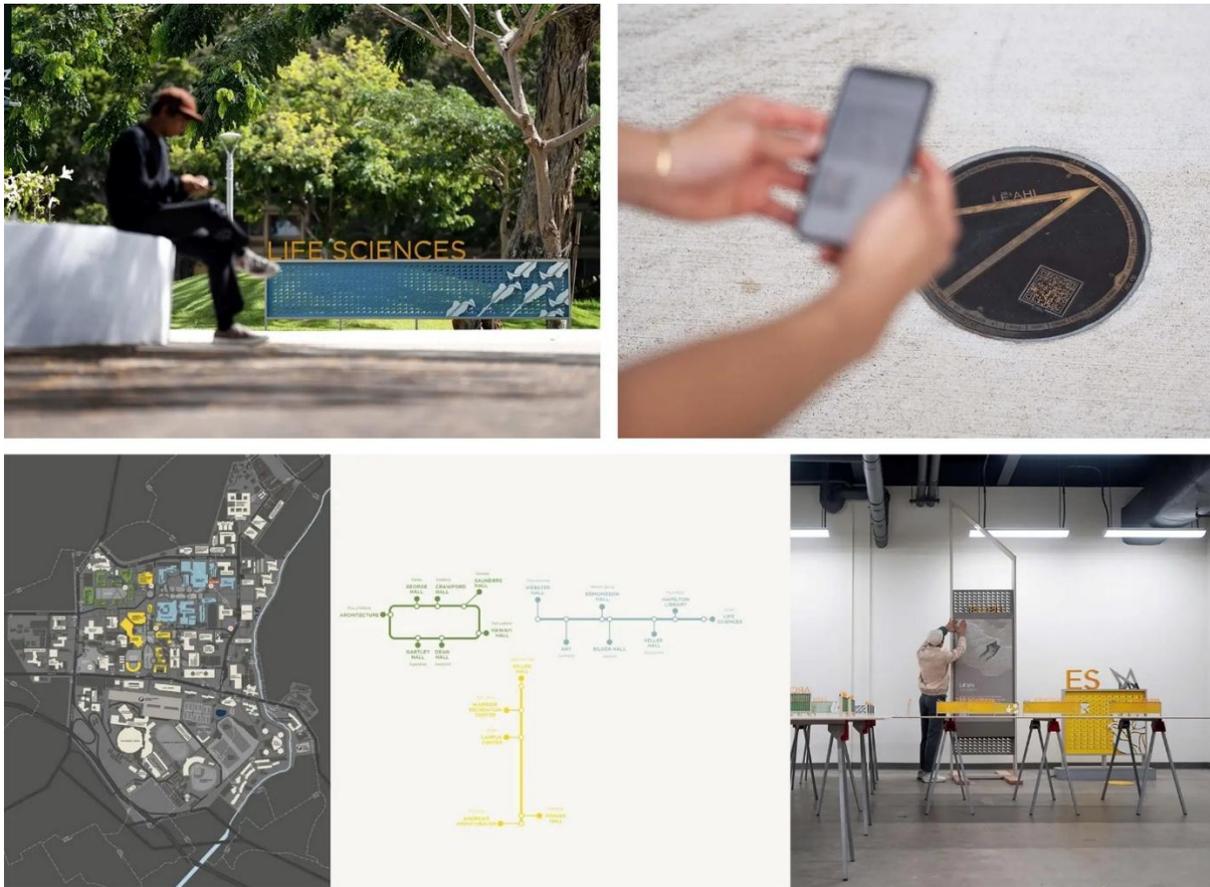
Developed in collaboration with Native Hawaiian designers and stakeholders, the project highlights three key features. First, indigenous narratives are activated by pairing building names with *wahi pana*, or culturally significant sites in Native Hawaiian geography, enabling visitors to better understand the campus's cultural and environmental context. Second, the use of bilingual signage in both English and Hawaiian, enhanced with kapa-inspired geometric patterns that symbolically represent ocean currents and local flora, reinforces cultural identity and symbolism. Third, the project emphasizes co-creation and rigorous prototyping, involving over 100 campus stakeholders—including faculty, students, and researchers, many of whom are Native Hawaiian—through workshops, user interviews, and iterative design processes to ensure that the visual language is both authentic and meaningful.

The project transforms standard wayfinding infrastructure into a tool for cultural storytelling. Instead of merely being directed, visitors are informed, introduced to the local language, environment, and heritage, and foster connections with the area. A study in Kailua, Hawai'i, found that first-time users, particularly tourists, greatly benefited from community wayfinding signage. The signage boosted their navigation confidence and awareness of local destinations (Keliikoa et al., 2018). The study emphasizes that co-designed, culturally informed signage can enhance user engagement and improve spatial understanding. Nearly half of the visitors reported that the signs assisted them in making route choices, while over 80% viewed them as beneficial to the community. This approach demonstrates how Experiential Graphic Design (EGD) can anchor spatial systems in genuine regional identity, thereby contributing to the cultural resilience of rural communities.

According to Tuan (1990) and his theory of *topophilia*, people form strong emotional connections to places through a blend of sensory experiences and symbolic elements. EGD systems that visually represent place names, indigenous languages, local stories, and symbolic patterns play a crucial role in maintaining this emotional connection to geography, even as rural environments change or become more commercialized.

Throsby (2008) defines cultural resilience as a community's ability to maintain its cultural values and practices despite external pressures. In rural tourism, EGD acts as a bridge, allowing local communities to assert and adapt their identities while remaining open to interactions with global audiences. This makes identification-based design an essential asset for ensuring long-term cultural continuity and socio-spatial sustainability.

Integrating local symbols and traditions into tourism design not only enhances visitors' experiences but also promotes economic sustainability. Research conducted by Banerjee & Mazzarella (2022) on innovative rural craft enterprises demonstrates that strategies grounded in local culture significantly contribute to long-term resilience and strengthen people's connection to a place.



**Figure 2.** Bilingual signage and interpretive identification system of the University of Hawai'i at Mānoa. © 2024 Global Design News. Source: Global Design News. 02 20, 2024. <https://globaldesignnews.com/beyond-wayfinding-at-the-university-of-hawaii-at-manoa-is-an-interdisciplinary-project-that-combines-elements-of-architecture-and-graphic-design-to-make-the-indigenous-voices-part-of-the-campus-inf/> (accessed 7 13, 2025)

### Case Study: The Forest Net(work)

The Forest Net(work) installation at the 2022 Seattle Design Festival demonstrates the power of participatory and immersive experiential graphic design (EGD) in boosting community engagement, environmental consciousness, and sensory experiences. As a project that achieved 99% zero waste, it transformed a scaffold-mounted canopy of biodegradable plant holders into an interactive, forest-like pavilion. Visitors were encouraged to select native saplings, engage with signage made from mycelium, and learn about sustainability through biodegradable labels and interpretive discs. It served as a hub for ecological activism, promoting ongoing community action. The Forest Net(work) installation was honored with the 2023 SEG D Honor Award and the Sylvia Harris Award for its outstanding blending of ecological design, community participation, and immersive storytelling (SEG D, 2022).

The Forest Net(work) installation at the Seattle Design Festival illustrates how temporary experiential graphics can foster emotional, ecological, and communal connections. Built from compostable and recycled materials, the project combined visual spectacle with environmental ethics, attracting significant public engagement (Fig. 3). Forest Net(work) serves as an inspiring example for rural tourism. It demonstrates how context-inspired installations, even if temporary, can offer visitors meaningful, sensory-rich experiences that extend beyond mere navigation or aesthetics. By actively involving participants through activities like plant giveaways, environmental storytelling, and sensory-friendly design, the project cultivates an emotional connection to the environment and encourages ecological responsibility. In rural areas, events such as festivals, art exhibitions, or temporary installations can be created using similar principles—emphasizing low-cost, high-impact visual strategies that engage local artisans and utilize natural materials. These events not only draw in tourists but also strengthen community pride and foster social interaction.



**Figure 3.** The Forest Net(work) installation at the Seattle Design Festival. © 2022 SEGD. Source: *Forest Net(work)*. 2022. <https://segd.org/projects/forest-network-2> (accessed 07 02, 2025).

Thackara (2019) highlights that immersive rural experiences go beyond aesthetics and storytelling; they require relational design and social infrastructures that link people, knowledge, and local assets. His “relational design” advocates for interconnected ecosystems of local enterprises—like food co-ops and maker spaces—to foster sustainable livelihoods and enhance place-based learning. This perspective emphasizes community participation and emotional engagement in rural tourism.

### Methodology

This study employs a qualitative, conceptual, and exploratory research design grounded in design research methodologies to examine how Experiential Graphic Design (EGD) can enhance rural tourism. The focus is placed on spatial communication, cultural identification, and immersive experiences. Rather than testing hypotheses or empirically evaluating interventions, the research aims to develop a conceptual model through theoretical synthesis, visual analysis, and the application of speculative design within a rural context. The methodology integrates a literature-based analysis of established urban EGD projects, a thematic synthesis across the dimensions of navigation, identification, and experience, and scenario building illustrated through a rural site in Lefke, North Cyprus. This approach aligns with Research through Design (RtD) and design-led inquiry (Frayling, 1993), generating speculative and practice-informed knowledge through the analysis and recombination of existing design artifacts.

Three internationally recognized EGD projects—Borough Yards (UK), Beyond Wayfinding (USA), and Forest Net(work) (USA)—were selected as precedents. Although these projects were not implemented in rural contexts, they provide valuable analytical models from which transferable design strategies can be derived. Each case was analyzed using a three-pronged framework encompassing navigation, identification, and experience. Navigation refers to wayfinding elements, spatial orientation, and visitor flow; identification includes visual storytelling, cultural codes, and place branding; while experience emphasizes emotional engagement, participatory design, and environmental integration. The interpretive analysis was based on secondary data sources, including project documentation, photographs, design reports, jury comments from awards, and relevant academic publications.

This triadic framework enables a comparative understanding of how each case supports different aspects of rural tourism potential through EGD strategies. The findings are subsequently synthesized into a conceptual model that proposes the application of EGD in rural settings to support cultural sustainability, as illustrated in Figure 4. Although the selected cases originate from urban or institutional contexts, they were examined for design strategies that could be adapted to rural environments. However, differences in governance structures, spatial scales, and socio-cultural dynamics between urban and rural areas may limit direct applicability. Therefore, the insights derived from these cases are intended as conceptual guidance rather than prescriptive solutions, highlighting the need for further research to contextualize these strategies within specific rural settings.

The key findings from this analysis contributed to the development of the Navigation–Identification–Experience (NIE) model, which was subsequently applied to Lefke, North Cyprus, to illustrate how EGD can promote cultural sustainability and spatial engagement in a rural town. The Lefke scenario is based on desktop research and visual documentation of the town’s spatial characteristics, a review of its cultural festivals,

architectural heritage, and tourism infrastructure, and an interpretive analysis of how EGD could enhance these attributes. While this scenario does not involve empirical fieldwork, it serves as a design-based projection demonstrating how the NIE model may be implemented in comparable rural contexts. Future research may extend this framework by applying the conceptual model in real rural communities, conducting field observations and visitor surveys, and collaborating with local stakeholders to evaluate its impact.



**Figure 4.** Conceptual Model of Experiential Graphic Design (EGD) for Rural Tourism. Source: Authors' fieldwork, 2025

## Design-Based Evaluation and Application of the NIE Framework

### *Assessing the Navigation–Identification–Experience (NIE) Model*

The comparative analysis of exemplary Experiential Graphic Design (EGD) case studies supports the effectiveness of the Navigation–Identification–Experience (NIE) model as a comprehensive framework for improving rural tourism through design (Calori & Vanden-Eynden, 2015; Lynch, 1960). Each component of the model contributes to a unique but interconnected aspect of spatial engagement:

1. Navigation provides clear guidance, ease of use, and builds confidence in navigation, which is especially important in low-density, fragmented rural areas (Lynch, 1960; Arthur & Passini, 1992).
2. Identification enhances emotional and cultural connections by visually representing local identity, heritage, and symbolic significance. It supports cultural resilience by helping communities express and protect their identity through participatory and narrative-driven design (Ashworth et al., 2007; Richards, 2018).
3. Experience promotes immersive, sensory-rich, and engaging interactions that personally resonate with visitors (Pine & Gilmore, 1999; Schmitt, 1999).

Together, these dimensions form a comprehensive visual language that extends beyond simple decoration. When thoughtfully incorporated into the early phases of rural planning, the NIE model can enhance tourist access, community representation, and long-term cultural sustainability (Lane & Kastenholz, 2015; Richards, 2018).

### *Strategic Role of EGD in Rural Development*

This study emphasizes that Experiential Graphic Design (EGD) should be considered a fundamental design strategy rather than just an aesthetic enhancement (Calori & Vanden-Eynden, 2015; Pine & Gilmore, 1999). When EGD is integrated into the early stages of rural development—alongside architecture, landscape planning, and cultural programming—it can:

1. Revitalize neglected historical and cultural assets through engaging visual storytelling (Ashworth et al., 2007; Richards, 2018).
2. Attract a diverse range of visitors, including eco-tourists, cultural travelers, and younger audiences (Lane & Kastenholz, 2015; Richards, 2018).
3. Strengthen cultural continuity by incorporating community narratives, traditional materials, and local symbolism into the spatial environment (Timothy & Boyd, 2003; Ashworth et al., 2007).

### **Broader Implications and Adaptability**

The case studies—Borough Yards (UK), Beyond Wayfinding (USA), and Forest Net(work) (USA)—are from urban or institutional settings, but the core principles of experiential graphic design (EGD) they demonstrate can be effectively applied in rural contexts as well (Calori & Vanden-Eynden, 2015; Kevin Lynch, 1960). These principles, which focus on spatial storytelling, identity-building, and user-centered navigation, are not limited by geographic location (Arthur & Passini, 1992; Pine & Gilmore, 1999). However, successful adaptation to rural areas requires thoughtful adjustments to suit the specific context (Lane & Kastenholz, 2015; Richards, 2018).

To ensure meaningful application in rural environments, several critical distinctions must be acknowledged:

1. **Governance and Planning Structures:** Rural areas often lack the institutional infrastructure, centralized planning models, and funding mechanisms that are typical in urban projects. Therefore, community-based planning and coordination among municipalities are essential (Okazaki, 2008; Lane & Kastenholz, 2015).
2. **Scale and Infrastructure:** Visitor flow, spatial density, and infrastructural capacity in rural regions differ significantly from those in cities. Sustainable tourism solutions must be tailored to fit the low-density and dispersed nature of rural layouts (Rosalina et al., 2021; Dax & Tamme, 2023).
3. **Socio-Spatial Dynamics:** Rural communities can vary in their readiness for cultural initiatives, levels of participation, and access to creative or technological resources. As a result, co-design practices should be inclusive and sensitive to the local rhythms and identities of these communities (Richards, 2018; Okazaki, 2008).

To support effective localization of EGD in rural tourism, adaptation strategies should emphasize:

1. **Material and Ecological Sensitivity:** The use of locally sourced, biodegradable materials, such as wood, stone, or copper—drawing inspiration from Lefke's mining heritage—reflects environmental ethics and supports authenticity rooted in the local area (Dax & Tamme, 2023; Sims, 2009).
2. **Vernacular Graphic Languages:** Visual systems based on traditional crafts, storytelling motifs, and indigenous aesthetics provide cultural continuity and enhance visitor understanding (Timothy & Boyd, 2003; Ashworth et al., 2007).
3. **Community-Generated Content:** Local voices, captured through oral histories, personal narratives, and symbolic motifs, encourage participation and foster a deeper emotional connection between residents and visitors (Okazaki, 2008; Richards, 2018).

Experiential Graphic Design serves as a bridge between tradition and innovation, enabling rural destinations to transition from passive, consumption-based tourism models to interactive, participatory, and sustainable experiences (Pine & Gilmore, 1999; Richards, 2018). This design-driven approach not only enhances cultural resilience but also supports economic sustainability and fosters intergenerational knowledge sharing (Lane & Kastenholz, 2015; Sims, 2009).

### **Illustrative Example: Applying the NIE Model in Lefke, North Cyprus**

To demonstrate the practical application of the Navigation–Identification–Experience (NIE) model in a rural environment, this example explores how experiential graphic design (EGD) could be implemented in Lefke, a town in North Cyprus with a rich history (Calori & Vanden-Eynden, 2015; Gibson, 2009). This scenario illustrates how EGD can support sustainable tourism development while reinforcing cultural resilience in rural areas (Lane & Kastenholz, 2015; Richards, 2018).

Lefke is a scenic town rich in mining history, Ottoman architecture, citrus, date, and walnut orchards, and a diverse heritage shaped by Turkish, Greek, and Maronite communities (Timothy & Boyd, 2003; Ashworth et al., 2007). Major attractions include the Soli Pompeiopolis ruins, Vouni Palace, Lefke aqueduct, historic mosques and churches, the Cengiz Topel Monument, and natural trails around Gemikonağı Bay and Yedidalga coast. Despite its charm and historical significance, Lefke remains underdeveloped concerning tourism infrastructure and communication (Rosalina et al., 2021; Dax & Tamme, 2023).

### **Navigation**

An EGD-informed signage system could effectively guide visitors through historic mining sites, Ottoman mansions, religious buildings, and nature trails (Arthur & Passini, 1992; Gibson, 2009). Directional signs made from local stone and incorporating copper elements, inspired by Lefke's mining heritage, would blend seamlessly with the environment while providing straightforward navigation in three languages: Turkish, English, and Greek.

### **Identification**

Interpretive panels could be installed at key locations, such as the Cengiz Topel Monument, the Soli Pompeiopolis ruins, and historic churches and mosques. These panels would feature archival photographs, symbolic motifs from local Cypriot crafts, and QR codes linking to oral histories narrated by community elders. These visual elements would promote cultural continuity and enhance the understanding of Lefke's complex identity (Ashworth et al., 2007; Smith, 2006).

### **Experience**

An interactive heritage route could be developed that includes seasonal festivals celebrating citrus, dates, and walnuts, such as the annual Hurma (Date) Festival in November and the Ceviz (Walnut) Festival. These events honor Lefke's agricultural richness and local customs (Sims, 2009; Mossberg, 2007). While these festivals already exist, their impact is often limited to specific locations and times. By integrating them into a broader, curated visitor experience supported by experiential graphic design, we could enhance their cultural and economic value.

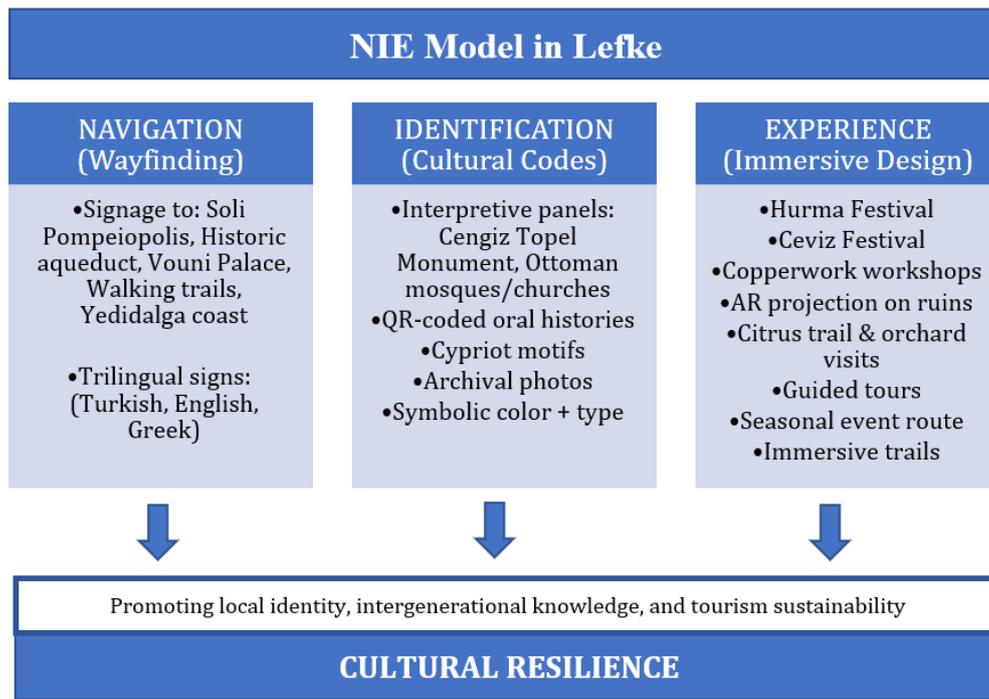
Currently, the lack of cohesive visual storytelling and signage limits these festivals' potential to contribute significantly to Lefke's tourism year-round. Embedding them within a continuous interpretive trail could enhance their impact by linking festival events to the town's mining heritage, architectural landmarks, and natural scenery (Richards, 2018; Lane & Kastenholz, 2015).

Additional features could include workshops on traditional copperwork and guided tours of the abandoned train tracks and aqueducts. Augmented reality installations could project historical scenes onto existing structures, further immersing visitors (Mossberg, 2007).

### **Possible Outcomes**

By utilizing experiential graphic design, we can transform Lefke's often-overlooked historical narratives into engaging and memorable experiences (Calori & Vanden-Eynden, 2015; Mossberg, 2007). This approach fosters community pride, promotes intergenerational learning, and supports sustainable rural tourism (Lane & Kastenholz, 2015; Sims, 2009). The NIE model as demonstrated in Figure 5, facilitates the reclamation of cultural spaces and visually expresses local identity in a cohesive and participatory manner (Richards, 2018).

Introductory comparative table distinguishes the urban EGD case studies from the rural Lefke scenario, highlighting contextual variables, design approaches, and challenges (Table 1). This table highlights the key differences and transferable principles among three selected urban Experiential Graphic Design (EGD) case studies: Borough Yards (UK), Beyond Wayfinding (USA), and Forest Net(work) (USA). It also compares these urban projects to a rural simulation scenario applied to Lefke, North Cyprus. While the urban projects serve as benchmarks, their design strategies must be adapted to fit the governance structures, socio-cultural dynamics, and material conditions of rural environments (Okazaki, 2008; Rosalina et al., 2021). By making this comparison, we can gain a deeper understanding of how foundational EGD principles can be reinterpreted to promote sustainable rural tourism and preserve cultural continuity (Lane & Kastenholz, 2015; Richards, 2018).



**Figure 5.** NIE Model Application in Lefke, North Cyprus. Source: Authors’ fieldwork, 2025

**Table 1.** Comparison of Urban EGD Case Studies and Rural Scenario in Lefke

Aspect	Urban Case Studies (Borough Yards, Beyond Wayfinding, Forest Net(work))	Rural Scenario (Lefke, North Cyprus)
Context	Densely populated, well-funded institutional or commercial spaces	Low-density, underfunded rural town with rich cultural assets
Governance & Planning	Top-down institutional planning, strong professional networks	Community-based, limited municipal capacity
Scale & Infrastructure	Large-scale developments, high visitor footfall	Small-scale, fragmented infrastructure
Target Audience	Urban dwellers, professionals, students, tourists	Eco-tourists, heritage seekers, local communities
Design Approach	Cutting-edge, tech-integrated, polished	Contextual, eco-sensitive, resource-aware
Material Strategy	High-budget, industrial or composite materials	Local, biodegradable materials (e.g., copper, wood, stone)
Cultural Integration	Referenced indirectly (e.g., historical motifs, campus identity)	Central to concept (e.g., oral histories, festivals, crafts)
Community Participation	Limited or symbolic involvement	Critical for co-creation and long-term sustainability
Technological Tools	Augmented reality, digital navigation, immersive media	Low-cost AR, QR codes, signage, participatory storytelling
EGD Implementation Goal	Enhance branding, campus experience, cultural awareness	Promote tourism, heritage resilience, intergenerational pride

Source: Authors’ fieldwork, 2025

**Conclusion**

This study aims to explore how spatial communication and visual design can respond to the evolving needs of rural tourism, examine global best practices in Experiential Graphic Design (EGD), and propose a conceptual model for integrating EGD into rural tourism planning to foster cultural resilience and enhance visitor engagement. Building on the foundational work of Kevin Lynch, Yi-Fu Tuan, and Edward Relph, the study positions EGD as a strategic practice that shapes both the physical structure and the emotional meaning of rural destinations. Lynch’s concept of legibility highlights the importance of coherent spatial elements—such

as paths, edges, landmarks, nodes, and districts—that enable users to form clear mental maps of a place. EGD contributes to this legibility by incorporating visual systems, signage, and wayfinding tools that make rural environments more navigable and accessible for both first-time visitors and local communities.

At the same time, Yi-Fu Tuan's concept of *topophilia* introduces a psychological dimension, emphasizing the emotional bonds that people develop with places. Through the use of culturally embedded symbols, narratives, and materials, EGD fosters a sense of belonging and deeper engagement, allowing visitors to connect not only with the physical environment but also with its meanings and cultural narratives. Complementing this perspective, Edward Relph's distinction between place and placelessness underscores the risks of homogenized and commodified environments that lack identity. EGD addresses this challenge by reinforcing local distinctiveness through regionally grounded visual languages and participatory storytelling, thereby preserving and communicating the unique character of rural landscapes.

Together, these theoretical perspectives establish EGD as more than a visual enhancement; it emerges as a transformative tool in rural tourism that supports cultural continuity, spatial clarity, and emotional engagement in environments that are often under-communicated or visually fragmented. Through a comparative analysis of award-winning EGD projects—Borough Yards, Beyond Wayfinding, and Forest Net(work)—this research develops the Navigation–Identification–Experience (NIE) model. The model demonstrates how EGD can improve spatial communication and clarity, express and safeguard local identity through visual codes, and foster immersive, participatory experiences that strengthen emotional connections between people and place.

The application of the NIE model to Lefke, North Cyprus, further illustrates how design-led strategies can transform underrecognized heritage assets into meaningful, year-round tourism experiences. By utilizing local materials, traditional graphic systems, and community-generated content, EGD bridges the gap between tradition and innovation. In doing so, it enables rural regions to shift from passive forms of tourism consumption toward more active, participatory, and culturally enriching modes of engagement.

### **Practical Recommendations**

Based on the findings, several recommendations are proposed for designers, tourism planners, and policymakers. First, Experiential Graphic Design (EGD) should be integrated at the early stages of rural tourism planning rather than treated as an afterthought, ensuring alignment with architectural and infrastructural developments. Equally important is local collaboration, where EGD strategies actively involve local communities, artisans, and cultural experts to maintain authenticity and foster a sense of ownership. In terms of implementation, a focus on low-cost, scalable, and sustainable design is essential, utilizing locally sourced, recyclable, and environmentally friendly materials. Approaches such as biodegradable or modular installations—similar to those seen in projects like Forest Net(work)—are particularly relevant for ecotourism and nature-based destinations.

Furthermore, the integration of digital-hybrid signage and layered visual narratives can significantly enhance visitor engagement. Combining traditional wayfinding systems with mobile applications, QR codes, and augmented reality (AR) tools allows destinations to cater to digitally oriented tourists while enriching interpretive content. Moving beyond purely directional signage, the incorporation of interpretive graphics, oral histories, artistic wayfinding elements, and site-specific symbols can provide deeper cultural and emotional meaning. Additionally, rural municipalities are encouraged to implement pilot projects and adopt an adaptive approach. Temporary or seasonal EGD interventions—such as graphic walking trails, festival branding, or storytelling murals—can be used to test effectiveness before larger investments are made. Establishing feedback mechanisms that involve both visitors and residents, alongside qualitative methods such as interviews, walk-alongs, and visitor mapping, will help ensure continuous refinement of these interventions.

This study also opens several pathways for future research, including testing the EGD model in real rural communities through fieldwork and visitor surveys, exploring cross-cultural differences in experiential graphic perception and engagement, and examining digital EGD applications such as virtual tours, interactive

signage, and mobile storytelling. Longitudinal studies are also needed to evaluate the impact of EGD on tourist return rates, community participation, and local economic development.

As rural areas increasingly face challenges such as depopulation, economic stagnation, and cultural decline, Experiential Graphic Design (EGD) offers an accessible and effective approach to revitalizing local identity and fostering deeper connections between visitors and place. By embedding EGD within spatial planning and tourism strategies, rural communities can move toward a more resilient, inclusive, and culturally enriched future.

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#### **Ethics approval and consent to participate**

Not applicable.

#### **Consent for publication**

Not applicable.

#### **Availability of data and materials**

The data supporting the findings of this study are available upon request.

#### **Competing interests**

The authors declare that there is no conflict of interest regarding this work.

#### **Declaration of generative AI and AI-assisted technologies**

During the preparation of this work the author used Grammarly in order to correct spelling mistakes and help me make better sentences. After using this tool/service, the author reviewed and edited the content as needed and takes full responsibility for the content of the published article.

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