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PERFORMING CULTURAL HERITAGE: ADVANCING URBAN EXPLORATION THROUGH AUDIO-VISUAL- IMMERSIVE JOURNEYS ON PUBLIC TRANSPORT AND CINEMATIC VIRTUAL REALITY.

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ABSTRACT | This paper explores the concept of ‘Living Heritage / Performative Cultural Heritage,’ an innovative series of audio-visual-immersive experiences designed to transcend conventional temporal and spatial boundaries. These experiences, accessible through curated apps and cinematic virtual reality (cine-VR), emerge as multifaceted tools, intertwining research, artistic practice, education, and cultural heritage preservation. The initiatives strive to foster awareness, observe sites, protect the environment, and celebrate cultural diversity by employing critical spatial practices. Inspired by the rich traditions of Situationists International, methods of urban practices assume a sensory, poetic, and critical stance in the exploration of urban spaces to stimulate curiosity, offering an alternative approach to experiencing the city.

The paper positions these projects within this theoretical framework, underscoring the imperative to deconstruct and reinterpret the city as a linguistic syntax. Furthermore, the initiatives leverage cutting-edge technologies such as VR/AR/XR, exemplifying how immersive experiences can enrich daily routines. Focused on public transport, particularly buses, and trains, as narrative protagonists, these initiatives carry histories and stories across historically significant sites.

The paper concludes by presenting two work-in-progress art-based research projects. Beyond their immediate impact, these projects endure within designated transport systems, remaining accessible to multiple users over time. The paper underscores the environmental impact, portraying the projects as instruments for promoting the knowledge of the effects of Climate Change, aligning with the vision of the United Nations’ SDG, both in social and ecological dimensions. In conclusion, ‘Performing Cultural Heritage’ advocates for new formats in audio-visual-immersive experiences in public transport and cinematic virtual reality, presenting a compelling case for enriching urban exploration, cultural appreciation, and sustainable urban development, considering human and non-human actors and agency.

1. Introduction: Performing Cultural Heritage

As a means of expressing Cultural Heritage, we have conceived a storytelling format—a sensory and visual experience for public transport and cinematic virtual reality. This initiative aims to facilitate a process of speculative fabulation, encouraging the reconsideration and reimagining of the past, present, and future. The format presents two journeys: an audio-visual experience accessible through an app and a cinematic VR experience—a 360-degree video. These aim to guide users in discovering untold stories at familiar locations along public transport routes.

While commuting by train or bus, individuals can engage with the project via a QR code, allowing them to hear stories from the natural and cultural communities along the route. The interactive art project is equipped with augmented reality (AR) and virtual reality (VR) technologies to create an immersive experience, enabling local stories to be perceived through hearing, sight, and other senses. Based on the hypothesis that the fusion of art and technology can collectively enhance social life and serve as a tool to animate alternative sensory experiences during public transportation, a cultural heritage is performed and re-enacted. Through the narrative conveyed by various ethnicities, communities, and social groups, coupled with advancements in virtual technologies, intangible cultural heritage can be identified, interpreted, and reintroduced into contemporary consciousness.

The two projects, *Regional Express* and *Hidden Treasure Walks*, offer tours, guide participants through scenic landscapes, and collect memories of local communities. Heritage, in this sense, comes alive, as the projects facilitate engagement with the past, present, and future, enabling imaginative exploration through speculative perspectives. In her book *Staying with the Trouble* (2016), Donna Haraway advocates for a new form of storytelling, whether ‘story’ is political, social, gendered, or centred on non-human entities. To understand how our environment has shaped our society, and to address the challenges of our troubled times, characterized by a planet and ecosystem in crisis, we must provoke thought and imagine alternative ways of existence and coexistence. We have adopted Haraway's Speculative Fabulation as a method to learn and unlearn the world within worlds together. Old belief systems are reinterpreted, and new ways of living are proposed. Our format aims to stimulate new thinking through collective speculative storytelling, shifting the perspective from the human to the non-human, exploring the realms of objects, animals, and nature in a new relationship to seek answers to the pressing questions of our times, and guide us to a positive future.

2. An Audio/Visual Experience



Figure 1. Poster of *Regional Express* with QR Code that leads to the audio/visual experience on the train. Design: Ortner etc.

2.1 The Future of Cinema

The audio/visual experience is a new way of seeing and experiencing a possibly new form of cinema. The future of cinema is marked by a shift from traditional cinema to its possible future in image storytelling across a wide range of new and experimental practices. Accompanied by recent technological progress and the changing media landscape, the future cinema could transform from simply viewing a movie to participating in, engaging in, and sharing the image content, creating an alternative sensory mode. This future scenario also indicates an exit from a movie theatre to different places—to any public place or to virtual reality through VR goggles—which determines the social relation of viewing communities. The evolution of moving image storytelling changes ways of seeing and living.

A medium is not only a support or a device. A medium is also a cultural form, defined above all by how it makes us think about the world and others, through the type of experience it activates (Casetti, 2016). Audio/visual experience extends the idea of cinema, not only as an immersion in visual and sonic experience but as a confrontation with reality, enabled by technology. To gain experience also means to produce knowledge. “The re-elaboration of this reality into knowledge (to gain experience), and the capacity to manage this and similar relations with reality (to have experience)” (Casetti, 2016). Thus, the idea or function of cinema merges with site-specific theatre, playing with the cinematic space—auditory to VR environments—and merging it with the actual sites of the performance. The train or bus and the cityscape become a hybrid or speculative space between the stage, auditorium, “architectural space,” and “cinematic space,” as described by Éric Rohmer (1989, 19-29). Instead of the classic architectural setting of the black box that directs the audience’s focus on the screen and cinematic space, the immersive audio/visual experience is closer to Gropius’s idea of total theatre, with minimal physical interventions into the actual setting of the train or bus ride, which is also the site of the VR screening.



Figure 2. *Regional Express*, Cinematic Virtual Reality Shoot, Set-photo, Saline Ebensee and Dachstein Giant Ice Caves. Photo: Pia Fronia.

2.2 The Power of Immersion

In the contemporary landscape of entertainment and cultural experiences, immersion has emerged as a powerful tool to engage audiences on a profound level. Spanning a wide range of media, from audio-visual narratives to virtual reality (VR) experiences, immersive encounters offer unique opportunities for engagement and exploration. Whether through traditional cinema or cutting-edge VR technology,

audiences can immerse themselves in rich storytelling environments that evoke emotions and provoke thought. While the surging popularity of VR has spotlighted immersive storytelling, its foundational concepts have been explored in immersive theatre, which stands as a unique fusion of performance art and audience interaction, blurring the lines between fiction and reality by integrating actors into the audience space. Tracing its roots back to ancient performance arts such as tableaux vivant, ancient Greek theatre, and Commedia dell'Arte, immersive theatre invites spectators to become active participants in the narrative. This approach breaks down the traditional barriers of spectatorship, heightening the sense of immersion and fostering deeper connections with the performance. Therefore, the technology of virtual reality represents a paradigm shift in immersive technology, offering unparalleled levels of immersion and interaction. The spherical filmic space of cinematic VR extends traditional filmmaking techniques, providing audiences with a panoramic view of the narrative. By enveloping viewers in a 360-degree environment, VR enhances immersion, allowing for exploration from multiple perspectives.

In their *Handbook on the Economics of Cultural Heritage* (2013), Rizzo and Mignosa underscore the importance of narrative involvement in virtual heritage applications, arguing that the sense of presence in a virtual environment hinges not solely on immersion but also on narrative engagement. By seamlessly weaving compelling stories into immersive experiences, creators can enhance audience engagement and foster emotional connections.

Narrative engagement serves as a conduit between the present and the past, enabling audiences to connect with historical events and figures on a personal level. Through interaction with characters and narratives, audiences develop empathy and become more invested in the historical context, fostering a deeper appreciation of cultural heritage. Additionally, narrative engagement facilitates emotional connections with cultural artefacts and historical narratives, eliciting understanding and empathy from audiences.

By presenting stories from diverse perspectives and incorporating multiple voices and experiences, immersive heritage applications foster a more inclusive and nuanced understanding of history. Users are encouraged to reflect on the complexities of the past, promoting empathy, tolerance, and cross-cultural understanding. Moreover, narrative engagement stimulates curiosity and critical thinking, prompting users to question assumptions, challenge stereotypes, and seek out new perspectives. By presenting historical events and figures in an interactive format, immersive heritage applications encourage users to think critically about the past and its relevance to the present. This process of inquiry fosters intellectual engagement and empowers users to become active participants in the interpretation and preservation of cultural heritage. The power of immersion affects the boundaries of reality, transporting audiences into the realm of the imaginative real. By prioritizing narrative involvement and embracing new technologies, immersive experiences stimulate audience engagement and deliver meaningful connections with cultural heritage and storytelling.

2.3 Sensorial, Poetic, and Critical Urban Practices

The study of urban landscapes has become a widely debated and interdisciplinary area of great interest in urban studies, architecture, philosophy, and art theory in general. Many spatial theories have emerged since Michel Foucault's introduction of heterotopias, places of difference, in 1967. Among them, Henri Lefebvre's concept of spatial practice, involves regenerating sets of relations within each social formation. (Lefebvre 1974) The purpose of such spatial practice is to create knowledge of spaces and to observe sites, ecological environments, and transcultural experiences. This method of approaching the city through a sensory, poetic, and critical instrument has a considerable tradition developed by critical thinkers and artists such as Guy Debord, Michel de Certeau, and Georges Perec. They developed concepts for poetic urban space interventions, proposing practices of psycho-geography that demystify contemporary capitalist society through experimental research modes, including walking and field excursion techniques (Debord, 1995).

Moreover, Michel de Certeau's *The Practice of Everyday Life* (1980) and Georges Perec's *Species of Spaces* (1974) are practical manuals on walking in the city following psycho-geographical maps. The most pertinent aspect is that walking, as a form of bodily engagement, opens a cognitive process that can be researched. Observing, sensing, writing, and recording what is seen and heard in the streets encourage us to walk with an awareness of our environment, as humans not only yield social relations and use values but also produce their own social space—a process Lefebvre would term spatial practice. This invites us to experience the city differently, to change our perspectives and venture off the beaten track, in order to sense something new (Lefebvre, 1991). The urban space can, therefore, be full of markers that hold stories to be explored. These might be street signs, cemeteries, flood-level marks, shops, or buildings, the names of landmarks, or simply advertisements that refer to a specific area. Collecting and unfolding these fragments and building upon them are methods learnt from the Situationists. By writing the city like a text, listening to it like a symphony, and observing people's movements as choreographies, we create sensory poetic narratives. We not only walk through the city to reach a destination or consume the urban space but also become active through the 'speech act' or 'performative speech', reprocessing everyday activity to create our own discipline (J. L. Austin, 1962, 6-8). The re-process investigates a new audio/visual cinematic language based on associative principles through sounds, lyrics, and textual materials that resonate with the senses. The investigation of the city does not aim at descriptive proof but an enactment of its poetics. To capture the subliminal textures of a society through the performative is to rewrite individual stories as a poetic device according to bodily experience.

The concepts of Situationists International are still highly relevant today and are reflected in books and art projects. A recent publication by the NTUCCA Centre for Contemporary Art, *The Impossibility of Mapping (Urban Asia)* (2020), draws on these ideas. It focuses on Asia through the ideas of William S.W. Lim (1932-2023), a key architect, urbanist, and cultural figure in Singapore who attempted to imagine a future in Asia. Lim understands a city as a stage for various forms of life that interact, mix, and mingle with each other, and calls for poets and artists to celebrate an imaginative, visionary city.

To sum up, these spatial theories aim to acquire new knowledge about the world through creative, participatory, and critical spatial practice. These artistic methods continue to be influential for many artists, architects, and urbanists alike. Most pertinent here is the work of Janet Cardiff and George Bures Miller. They have created a series of audio and video walks since the 1990s using iPod, headphones, and recording guides to create narratives along the routes. The artists arranged actual backgrounds in their staged visual or audio settings to create real-life stories, blending the fictional with the actual as a 'physical cinema.' Since Cardiff & Miller, other immersive virtual guided tours have been developed. Most remarkable is the recently developed app *Seven Grams* (2021) by Karim Ben Khelifa, mixing augmented reality and animation into a journalistic project for people to understand the human and natural resources it costs to produce their smartphone. It takes them on a visual journey to Congo, Africa. The award-winning project successfully combines communication technologies to highlight the ultra-realism of the human plight of colonialism.

In the context of post-colonial thinking, counter-mapping practices can function as a tool for sharing reversal-narratives of a place, re-inscribing marginalized histories into the urban fabric and historiography of a place. African American thinker and activist bell hooks describes the margin as a space of radical openness (hooks, 15-23). Through listening to, collecting, and sharing the personal stories and perspectives on a place or the memories of significant spaces for marginalized groups within a city, this sensory experience can form an archipelago of counter-archives, becoming visible and tangible, reaching across times and neighbourhoods, and connecting the participants or audience of this audio and visual experience with people from various eras and walks of life within the complex urban structures. This practice of counter-mapping and remapping also has the potential to resist dominant narratives of entire regions with an ignored, and paradoxical history, like that of the Salzkammergut in rural Austria since the First World War.

In recent years, participatory and co-creative design and speculative research have contributed to a paradigm shift in spatial production in cities around the world, as municipalities have incorporated participatory processes into their urban agendas to re-centre the margins and create more liveable

environments in public spaces, combating heat islands and pollution (Fitz & Krasny, 2019). These co-creative strategies, like counter-mapping, can potentially increase visibility and agency, which the following case studies in Salzkammergut and Singapore aim to achieve through interviews, storytelling and filmmaking, as an epistemological shift to producing a new set of spatial relations.

3. Art-Based Research: Journeys on Public Transport in Cinematic Virtual Reality

3.1 *Regional Express* — A Project for the European Capital of Culture Bad Ischl - Salzkammergut 2024

Regional Express has been conceived as 'living heritage/performative cultural heritage,' by an international and interdisciplinary team of artists who developed a programme accessible on the train via QR Code. The audio-visual-sensory experience will be available via the Salzkammergut Culture Guide, the official app of *Salzkammergut 2024*, and through curated programmes, thus extending the temporal and spatial boundaries of the European Capital of Culture Bad Ischl Salzkammergut 2024. It offers two journeys: a primarily acoustic experience available on the train, and a cinematic VR experience accessed through VR Goggles.

Regional Express takes its name from the local train that traverses and connects the region. The train serves as the central protagonist in the narrative of the *Regional Express*. This journey carries the history and stories of various places and people. Private narratives intertwine with significant historical events. The immersive expedition extends across countryside, cities, lakes, and mountains. Nature acts as the backdrop that links personal stories with contemporary history and global transformations. The train provides the opportunity to retreat into the heart of the Salzkammergut, into the mountains, investigating the essence of its history. Simultaneously, it travels in the present moment, thus bridging the present and the past. The narratives extend beyond facts; fictions and fabulations establish a speculative connection between people and nature.

The acoustic sensory experience of space is paramount. The train resembles a journey into multi-sensory worlds that reveal the complexities of the region. The stories are always established in relation to different perspectives of narratives, nature, the mountains' inner worlds, the lake's depths, the mine, and its past. The train transports characters such as the conductor, commuters, and students who travel the route daily. The stories are unexpected, have never been told like this before, thus casting a new perspective on a pluralistic society that is itself in flux. The train in motion is a narrator, the passengers time travellers, and the passing landscape acts as the cinema. The moving train carries various connotations—it symbolizes the train of history, serves as the narrative's setting, acts as a heuristic device, and stands as an emblem of industrial progress (Michelson, 2020, p. 17). One of the earliest films made by the Lumiere Brothers, *The Arrival of the Train* (1895) marks the advent of modernity, showcasing the speed and progress of new technology. While rail transport opened the possibility of travel and tourism, facilitating trade and transport, it also played a role in the 20th century's horrors of fascism, serving as the infrastructure of the Holocaust, transporting millions of people across Europe to their fateful destinations.

In *Regional Express*, the train journey through Salzkammergut carries the narrative. The history of the landscape unfolds in a cinematic experience. Passengers become time travellers, journeying from the prehistory to the present of the region. The scenario writer Petra Ardai conducted a series of interviews with locals and collected their stories about the history and present of the landscape, nature and people, and the relations between them. This oral history and documentary material is embedded in a fictional framework of a conversation between three non-human entities: the Train, the Traunsee Mermaid, and the Mountain.

The main aim is not to reconstruct history in every detail but to build a bridge between the lives of the audience now and the historical past so that one can intimately relate to it. The researchers, including the directors, writers, actors, and participants, collectively use fictional narrative elements to change dominant perspectives and allow for a deeper understanding and personal engagement with the stories of the interviews and the region's history. While these characters—the Train, the Mountain, and the Mermaid—are non-human, they care deeply about humans and their well-being. They address passengers in human language, asking questions and offering reflections on the historical dilemmas raised in the story linked to the landscape that passes by. The Train, driven by time, faithfully follows its track; the Mountain stands firm and unmoving, and the Mermaid, a product of myths and sagas, exists only in the imagination. These characters, with their distinctive qualities, offer parallels to the people of Salzkammergut, who often perceived as traditional, steadfast, dutiful, and resistant to change. At the same time, the non-human characters' fictional view of humans creates a subversive distance and space for counter-observation, while fostering a sense of connection to the past, with stories of landscape and nature or people who lived long ago, performing a critique on anthropocentrism centered on non-human entities. The train functions as a 'mobile monument' of modernity offering a speculative perspective of histories, where the narrative is inscribed into the historical textuality of the passing landscape along with the roaring engine. (McCalman, I. & Pickering, P., 2010, 61)

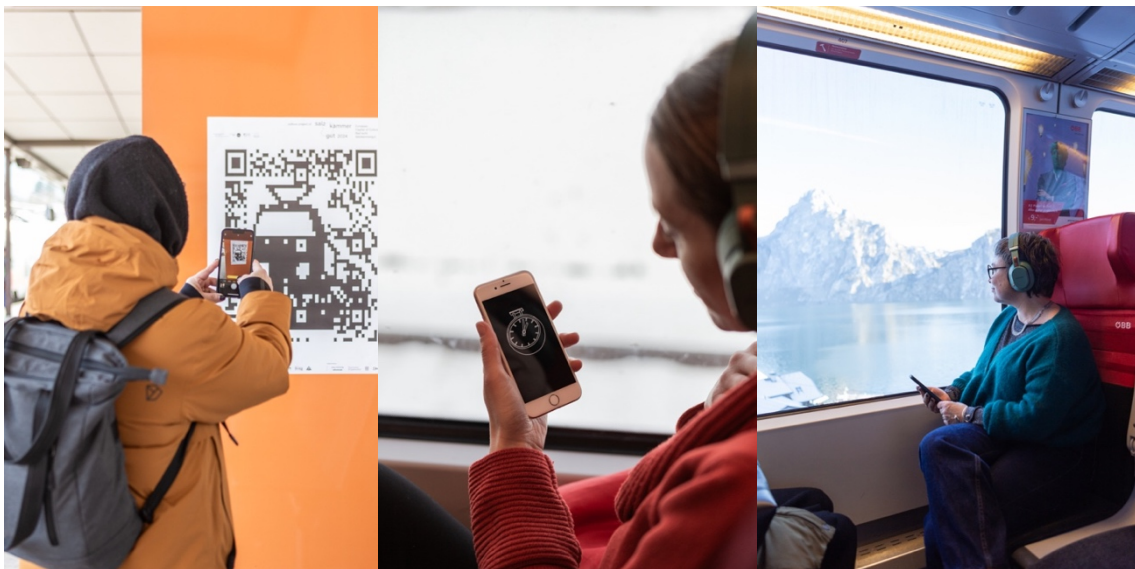


Figure 3. *Regional Express* Excursion on the train between Gmunden and Ebensee, Austria. Photo: Pia Fronia.

The train journey is divided into five excursions, each chapter corresponding to a specific segment of landscape and inhabitants. Excursion 1 [Gmunden to Ebensee] tells the story of the relationship of humans to landscape and how the existing landscape was shaped by the sea, the movement of the glacier, and the temperature changes that have created the characteristics of the landscape and its salt mines. Excursion 2 [Ebensee to Bad Ischl] focuses on the relationship between humans. The former concentration camp in Ebensee leaves its mark on the landscape, with visible traces of the stone mine shaping the mountain. Positioned along the train tracks, the concentration camp in Ebensee served as the arrival point for prisoners. Between 1943 and 1945, nearly 11,000 innocent prisoners, predominantly juveniles, perished in the camp. The segment is intercut with interviews with Wolfgang Quatember, the director of the *Zeitgeschichte* Museum in Ebensee, and the descendants of the survivors. For the scenario writer Petra Ardai, juxtaposing the landscape's beauty with the horrors that unfolded there was striking. Conversations with Dr. Leo Kuhn, son of the survivor Leo Kuhn, and Silvia Dinhof-Cueto, daughter of the survivor Victor Cueto Espina, shed light on life in the camp and the days of its liberation. Excursion 3 [Bad Ischl to Hallstatt] turns to the relationship of humans with their imagination, unravelling the region's importance for the Austro-Hungarian monarchy that claimed the salt-mine region as their chamber of wealth and commerce. The established and oft-repeated narrative for Bad Ischl, the summer residency of the monarchy, centres

on the House of Habsburg. To open up and change the perspective, the narrative of the *Regional Express* focuses on female leaders in society and trailblazers in their respective roles: the mayor of Bad Ischl, the director of the Saline, the Salt Factory, and Women's Forum Ebensee. Excursion 4 [Hallstatt to Bad Aussee] assembles quotes from the interviewees about the definition of Heimat and what it means for them. Excursion 5 is a soundtrack composed by Estonian composer Sander Saarmets; the way back from Bad Aussee to Gmunden allows for reflection, doing nothing, looking out of the window, immersing oneself in the train's speed, and viewing the passing landscape as cinematic experience.

The Salzkammergut is a region of tourism. In recent years, Hallstatt having been awarded World Heritage Site status in 1997, and has become as a premier tourist destination. Notably, its portrayal as a filming location in a Korean soap opera and replication as a real estate project in China, depicted in Ella Raidel's film *Double Happiness* (2014), ignited an influx of Asian tourism. During the peak season, as many as 10,000 tourists, predominantly from Asia, descend upon the town. This surge has proven overwhelming for the small community of 800 residents, sparking numerous controversies. In response, the European Capital of Culture Salzkammergut 2024 has undertaken several initiatives addressing tourism, aiming to devise strategies for sustainable tourism and the preservation of cultural traditions and architectural heritage.

As Konrad Wallinger from Kino Ebensee observes in an interview with Petra Ar dai and Marlene Rutzendorfer for *Regional Express*:

“The Salzkammergut, in the future, will resemble a colossal museum. It will be akin to a natural history museum where you gaze at the mountains, questioning their reality, whether the water is warm or cold, and if you can dip your finger in it. You purchase a train ticket in Attnang-Puchheim, traverse the landscape, examining whether there are still cows or anything else, and everything will come with a price tag. It is evolving into a colossal Disneyland, a scenario that, while not particularly prophetic, seems highly plausible.” (Wallinger & Müllegger, Kino Ebensee).

Although tourism is economically vital for the region, over-tourism has become a major problem. The Salzkammergut is a closed mountain region with specific flora, fauna, and culture. Embracing new and diverse influences that challenge traditional values is essential for the region's future. However, opening up to change and admitting new values into the region's traditional monocultural social fabric, without losing its original character or damaging what should be preserved is a delicate process. The cultural and artistic programmes of the European Capital of Culture are a facilitating and mediating platform to find answers or at least to bring movement to solving the dilemma. Art, the power of imagination, can open dialogues and show ways of envisioning more inclusive and sustainable futures.

The second journey in *Regional Express*, premiering in August 2024, offers a similarly engaged outlook on the region but as seen from the future. The Cinematic VR (360-degree video) directed by Ella Raidel is an associative and sensory fabulation on the above topics. In this story, a female Asian explorer, like a retro-futuristic astronaut, returns from the future to the uninhabited Salzkammergut, which can no longer be physically visited but can only be experienced through virtual reality. The time traveller explores salt and ice caves, mountains, and landscapes. Her journey is narrated through a sequence of still images showing frozen sites and stills no longer inhabited by humans. She enters the image through a time machine that catapults her into different scenarios. Taking Chris Marker, *La Jetée* (1962) as an example for narrating a science fiction plot through still images, the explorer encounters these still images as relics from a former time; as if wandering through a museum, she transcends the epochs. Eventually, she discovers the last button shop, an actually existing shop in the town, and its owner, but this too may appear to be a dream, as no other traces of humans are present. As an example of “virtual dark tourism” this VR journey recognizes the audience as a tourist in an alien environment that takes place only in imagination and through immersive sensory stimulation as sound, images, and smell, a synchronicity of catastrophic here and now. (McDaniel, 2018, p.3)

As the explorer moves around, the audience feels, touches, and senses her surroundings along with her. The cinematic virtual reality allows us to immerse audiences in the scenario. The audio design is crucial; we

can hear and listen to the surroundings in a 360-degree range. Sonic inputs direct our gaze in different directions; when someone calls us from behind, we may turn our head and body to move towards the sensation. As we don't have legs in cinematic virtual reality, our bodies do not touch the ground as if they were ghosts and the sensation of floating can enhance the science fiction plot, though to some viewers this might create a sense of motion sickness.

To the audience, the landscape and scenarios appear like a museum, with the present time frozen and waiting to be accessed from the future. This experience draws inspiration from the film *La Jetée* (1962), in which a group of scientists undertake experiments in time travel at the apocalyptic time. As we advance with VR technology, VR goggles have a similar function as the time machine, helping us transcend our reality and immerse into the audio-visual surroundings to the uncertain temporal space. As technology linearly progresses, a messianic future scenario should be inscribed with the presence of our physicality in a virtual environment, where we could immerse ourselves *as if* we were in dream, or we could wake up in the horrific reality that humans have caused.

3.2 *Hidden Treasure Walks* — A Virtual Immersive Cultural Experience in Singapore

Hidden Treasure Walks (2024-2027) is a consecutive art-based research project that aims to offer an immersive experience from an app and a 360-degree video, to guide its users to the discovery of untold stories at familiar locations along a bus route in Singapore. Using the field findings from the natural and cultural communities around the route, the research combines AR and VR technology to produce an immersive experience for local stories to be heard, seen, and sensed. Besides raising awareness of Singapore's rich cultural heritage, *Hidden Treasure Walks* exceeds traditional artistic limits and operates on the hypothesis that art and technology can jointly improve social life. Through the narrative of sensory inputs, voiced by different ethnicities, communities, and social groups and equipped with new virtual technologies, the intangible cultural heritage of hidden treasures in Singapore can be identified, interpreted, and reintroduced. The project explores the city as a spatial practice, reflecting our subjective relation to ecological, urban, social, and cultural surroundings. The virtual experience will take place on a bus and through a walking tour of nearby communities and historical sites, exemplifying how art can engage the mind, and deepen our understanding of what lurks in everyday environments. The research project aims to deliver two results: (1) An app called *Hidden Treasure Walks* (HTW), designed as a GPS-triggered audiovisual guide. The soundscape is the main carrier of the narrative experience, punctuated by a site-specific AR experience. (2) A series of 360-degree videos based on the same story. Participants can access cinematic virtual reality episodes without being on the site.

This project creates awareness of Singapore's cultural heritage and collective social memory through diverse oral traditions and stories that foster local identities. The sense of belonging is inspired by awareness through connecting art, technology, and people. The app, HTW, will be developed in such a way that it serves as a walking guide, immersive storytelling experience, and an educational resource on cultural heritage. The app works through GPS location markers and will prompt related content to the user. This interdisciplinary project—including field knowledge from architecture, urban studies, sociology, and cultural history—combines art forms such as cinema, theater, music, and communication technology in AR and VR. It aims to document a vanishing past, preserve collective memory, and imagine a possible future of life in Singapore. Through research, communities and social groups of diverse cultural backgrounds will formulate a collective identity for creative and artistic interventions in a fast-changing urban space.

4. Conclusion: The Spatial Practice of Sensing Places

Through performing cultural heritage, these two art-based research projects offer an audio-visual sensory experience in a digital format that allows participants to connect to the unique identity of a place. The main aim is not to reconstruct history in precise detail but to traverse between the past, present, and future, and to offer alternative perspectives that audiences can not only relate to intimately, but also be alarmed to foresee. The storytelling provides an alternative way of seeing and listening to the spaces we inhabit, engaging in an otherworldly experience through cinema and the post-cinema of portable devices. The passing landscape visible from the windows of public transportation offers a supplementary cinematic experience and acts as a real backdrop to the fabricated temporalities of the audio-visual experience, in which participants transcend the present and fully immerse themselves into an imaginary audio/visual landscape of future.

These projects provide an alternative way to explore, walk, and experience the city using highly accessible mobile devices. Instead of acknowledging consumerism, the audio-visual journeys awaken the curiosity of discovering unfamiliar and lesser-known sites. These immersive journeys are, in effect, the spatial practice of remapping our sense of a place, based on the dialectical relation between the imaginary and the fixed reality. Beginning from a familiar place, these journeys carve a path through time, prompting us to discover, decipher and decode the histories and stories of places. Participants become active producers of one's own space, and the spatial practice in turn influences the individual in many ways. Through an approach that marries art and technology, the projects offer many entry points into research, artistic practice, education, and cultural heritage, and are intimately connected to the biosphere of local communities.

Rather than retreading the existing narratives of a space, novel stories of a space are thus told, and fresh modes of experiencing society produce anew the spaces we inhabit, affecting how we perceive a space. By counter-mapping the places that already bear the traces of colonialism, global conflicts, and omnipresent governance, forgotten stories can be reintroduced into the urban fabrics of lives. What Karl Marx said, "The forming of five senses is the labour of the entire history of the world down to the present," can hold true today, through the generation and redistribution of five senses through immersive technology. Individuals and communities can deepen their pride and find their roots in the native land by incorporating stories that were previously ignored or marginalized, never heard or seen, thus recovering more complete histories to be integrated into the virtual present.

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