Bridging Art and Education - The Haiku's Hybrid Role

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Introduction

In the context of rapid technological progress, which continuously transforms our perception and experience of reality, the Communities and Artistic Participation in Hybrid Environment (CAPHE) project examines the dynamic shifts in the realm of artistic expression. This book documents a transformative process that begins with a moment captured in a photograph and concludes with a visualization created by artificial intelligence on the Midjournay platform, highlighting the complexity of artistic participation in hybrid environments.

The starting point, a captured moment, serves as a reference for the power of observation and appreciation of everyday details. This moment inspired CAPHE researchers to create a haiku, a traditional form of Japanese poetry, which, through its concise structure and deep meaning, captured the value of the photograph. The haiku poems became a bridge to the next stage, in which we utilized the capabilities of artificial intelligence to visualize poetry using the Midjournay AI program. This transition reflects the core principles of the CAPHE project, merging human creativity with technological potential, which contributed to the creation of digital artworks. The generated images transcend traditional categories and offer alternative perspectives on artistic expression in hybrid environments.

This book encourages reflection on the impact of art and technology on our lives, depicting the transition from a simple moment of focus to a complex artistic experience. Through analysis and exploration, we aim to understand how artificial intelligence can reinterpret human emotions and perceptions of reality and enrich traditional forms of artistic expression, opening up new possibilities for the future that may lay the foundations for new forms of art.

The narrative of the book develops around three key aspects: theoretical, cognitive, and practical. Special emphasis is placed on examining the ways in which AI technologies can serve as tools for representing and interpreting human experiences. Through the lens of algorithms and machine learning capabilities, artificial intelligence can not only mimic human creativity but also introduce new elements into traditional artistic forms.

The choice of haiku as the starting point for our exploration highlights an interest in crossing boundaries between word and image and between direct experience and technological reinterpretation. In this context, CAPHE researchers sought to discover new pathways for artistic expression and educational practice, pointing to the potential of hybrid artistic environments.

By presenting analyses and interpretations of pairs of reality descriptions (human and nonhuman) expressed in images and words, we join the discussion on the role of art and AI in shaping our culture and education, encouraging deeper contemplation of the possibilities that arise from the merging of these two worlds. We hope that this book will not only inform but also inspire reflection on how hybrid artistic environments can contribute to the development of both individual creativity and communal educational practices.

Elzbieta Perzycka-Borowska

Part 1 Theoretical foundations and methodological insights

Chapter 1 CAPHE exploration with haiku *(Michał Parchimowicz)*

1. Introduction

The CAPHE project, with its focus on integrating community, art, process, hybridity, and education, provides an innovative perspective for examining the evolution of artistic expression, particularly through the lens of the traditional haiku poem in hybrid environments. This project is not just an exploration of technology and art; it is a confluence of transcultural collaboration, where partners from diverse backgrounds bring their unique viewpoints to creatively construe and structure experiences in virtual reality (VR), augmented reality (AR), and artificial intelligence (AI).

In these hybrid environments, the juxtaposition of physical and virtual layers creates a new realm of possibilities. The haiku, a form of poetry known for its simplicity and depth, undergoes a transformation in this context. Traditionally, haikus capture the essence of a moment in nature or daily life, reflecting a deep connection to the immediate environment. In hybrid spaces, these poems evolve, engaging with both the tangible and intangible, the real and the virtual.

The exploration of haiku in these hybrid environments by CAPHE is multidimensional. The first dimension is community interaction. Here, the focus is on how communities engage with haiku in both physical and virtual spaces. This includes the creation, sharing, and interpretation of haikus in online forums, VR environments, and real-world gatherings. The project investigates how these interactions differ from those in traditional settings and how they influence the collective understanding and appreciation of haiku.

The second aspect is art creation and distribution. CAPHE examines how new technologies such as VR and AR can be used to create immersive haiku experiences. Imagine a VR environment where users can walk through a virtual landscape, with each step revealing a new haiku, or an AR application that overlays haikus onto the physical world, blending poetry with the environment. The project also explores how these poems can be distributed and shared across different platforms, reaching a wider and more diverse audience.

Education is another critical perspective of the CAPHE project. Here, the focus is on how haikus can be used as an educational tool in hybrid environments. This involves studying how the integration of VR and AR in classrooms can enhance the learning and teaching of haikus, making it more interactive and engaging. The project also explores how AI can be used to generate haikus, teaching students about the nuances of this poetic form and inspiring them to create their own.

The fourth perspective involves the process of creating and experiencing haikus in these environments. This includes the technical aspects of constructing VR and AR experiences, the artistic process of writing haikus suited for these mediums, and the user experience of engaging with these poems in a hybrid setting. The project team delves into the challenges and opportunities presented by these technologies, exploring how they can enhance or alter the traditional haiku experience.

The project considers hybridity itself—the blending of the physical and virtual, the human and the artificial. This perspective involves examining how the essence of haiku changes in a hybrid environment. Does the integration of VR and AR add new layers of meaning to the poems? How does AI influence the creation and interpretation of haikus? These questions are central to understanding the role of haiku in these evolving spaces.

The CAPHE project's exploration of haikus in hybrid environments is a comprehensive study that covers various facets of technology, art, and education. It is a journey that transforms the traditional haiku from a simple poetic form into a multidimensional experience that transcends boundaries and opens new avenues for artistic expression and understanding.

The project team studies community interactions, art creation and distribution, and education in these environments from five perspectives: 1) "C" is for Community and the Collective Voice; 2) "A" is for Art and the Everyday Poet; 3) "P" is for a Process and the Evolution of the Haiku; 4) "H" is for Hybridity and the Digital Haiku; and 5) "E" is for Education and the Haiku Renaissance.

2. Five perspectives of CAPHE

2.1. C- Community and the collective voice

The concept of "C" within the CAPHE project resonates profoundly with the traditional ethos of haiku. Historically, haikus has been a lens through which poets encapsulate and reflect upon moments observed in nature and everyday life (Stibbe, 2007). This reflection is not just a

solitary act but often a shared experience in which the simplicity and depth of haiku invite collective understanding and appreciation.

In the hybrid environments fostered by the CAPHE project, this communal aspect of haiku takes on a new dimension. Drawing from the concept of "nonconsensual democracy", haikus became a platform for a collective voice, an amalgamation of individual experiences and perspectives. This approach challenges the traditional notion of haiku as a solitary observation, transforming it into a dynamic process of communal engagement and environmental information exchange.

In these hybrid spaces, the haiku serves as a medium for fostering dialogue and self-reflection. Each haiku becomes a conversation starter, an invitation to engage with the poet's perspective and contribute one's own. This dialogue extends beyond mere words; it encompasses the sharing of experiences, emotions, and insights. The brevity and precision of haikus make them particularly suited for this purpose, as they distill complex thoughts and feelings into a few impactful syllables.

Moreover, the CAPHE project enhances this communal aspect by leveraging technology. In virtual and augmented realities, haikus can be experienced collectively, transcending physical barriers. Imagine a virtual forest where each tree bears a haiku, inviting visitors from around the world to reflect and add their own verses. This collective creation of poetry not only democratizes the artistic process but also enriches it, as each contributor brings their unique background and perspective to the table.

The emphasis on the community also fosters a deeper connection with traditions. Haikus has long been a medium for capturing the essence of nature and human experience. In a hybrid environment, this tradition is both preserved and expanded upon. The collective voice in haikus enables a diverse range of experiences to be shared and appreciated, broadening the scope of what haikus can encapsulate. This diversity is not just in terms of geography or culture; it also encompasses different perspectives on nature, life, and art.

Furthermore, the concept of environmental information exchange in haikus becomes particularly relevant in the context of the CAPHE project. In these hybrid environments, haikus can serve as a medium for raising awareness about environmental issues, sharing observations about changes in nature, or reflecting on the human-nature relationship. This exchange of information and ideas can lead to a greater understanding of and empathy for the natural world, aligning with the haiku's traditional focus on nature.

The "C - Community and the Collective Voice" aspect of the CAPHE project represents a significant evolution in the way haikus are perceived and utilized. It transforms the haiku from

a solitary snapshot of nature or life into a vibrant, communal tapestry of voices and perspectives. This transformation not only respects the traditional roots of haiku but also reinvigorates it, making it more relevant and accessible in today's interconnected, technology-driven world. The collective voice in haikus has become a powerful tool for communication, connection, and understanding, bridging the gap between the individual and the community, the traditional and the modern, and the physical and the virtual.

2.2. A - Art and the everyday poet

"A" within the CAPHE project encapsulates the essence of haiku as a form of art accessible to everyone, resonating with the idea that artistry is not confined to the elite or traditionally trained artists but has inherent potential for every individual. The haiku, known for its succinctness and profound depth, serves as a beacon for this democratization of art.

In the context of CAPHE, which emphasizes social art, the haiku transcends the boundaries of conventional art spaces. No longer limited to poetry readings or literary journals do haikus find their canvas in the diverse and dynamic environments of everyday life. From the lively buzz of city streets to the quiet, contemplative corners of online forums, every setting becomes a backdrop for this poetic expression. This ubiquity of haiku in various spaces symbolizes the breakdown of traditional barriers in art, making it more accessible and relatable. The core of this approach lies in the belief that every member of the community can be an artist, a creator of haiku. This belief is rooted in the nature of haiku itself—a form that captures the essence of a moment or an emotion in a few carefully chosen words. This simplicity and brevity make haiku an ideal medium for expressing complex thoughts and feelings in an approachable manner. Every individual, regardless of their background in art or poetry, is armed with their unique observations and emotions, making them a potential haiku poet.

This concept of the everyday poet leads to an "artful life of social interaction". In this framework, creating art becomes a part of daily life, a way of interacting with the world and others. The haiku serves as a tool for this artistic expression and social interaction, enabling individuals to share their perspectives, experiences, and emotions. This sharing is not just about the creation of art; it is about building connections, fostering understanding, and nurturing a sense of community.

Furthermore, the CAPHE project's focus on social art through haiku encourages a reflective and mindful approach to life. In the process of observing and composing haikus, individuals become more attuned to their surroundings and their inner experiences. This

mindfulness enriches their daily life, turning routine moments into opportunities for creativity and reflection.

The role of technology, especially in the context of CAPHE, further amplifies the potential of haiku as a medium for social art. Digital platforms and social media have become new venues for sharing haikus, reaching a wider audience and allowing for immediate feedback and interaction. This technological integration also enables the fusion of traditional haiku with multimedia elements, creating a hybrid art form that is both rooted in tradition and relevant in the digital age.

The concept of "A-Art and the Everyday Poet" within the CAPHE project redefines the haiku as a democratic form of art that is accessible and relevant to all. It champions the idea that artistry is not confined to specific spaces or trained artists but is a potential for every individual. By integrating haiku into everyday environments and social interactions, CAPHE fosters a culture where art is not only a passive experience but also an active, integral part of life, encouraging every individual to embrace their inner poet and artist.

2.3. P - Process and the evolution of the haiku

"P" within the CAPHE project emphasizes a shift in focus from the end product to the creative journey and context of haiku creation. This approach aligns with the concept of "dialogical art", where the creation of art is seen as an ongoing conversation, not only between the artist and their work but also involving the audience and the environment. This perspective significantly alters how haikus are perceived, created, and appreciated.

Traditionally, the haiku is valued for its concise structure and profound ability to capture a moment in time. However, the process-based approach of CAPHE encourages a deeper exploration into the context of each haiku. It is not just about the 17 syllables penned down; it is about the series of observations, thoughts, and emotions that led to those words. This approach brings forth the narrative behind each haiku, enriching its meaning and connecting it more intimately with its creator and audience.

In this framework, the haiku becomes a living entity that evolves with each interaction. As poets share their haikus, they invite feedback, interpretation, and even collaboration. This transforms the traditional solitary act of haiku writing into a communal experience. The haiku, therefore, becomes a dialogue, a medium through which poets and readers share experiences and emotions. This dynamic interaction fosters deeper bonds among participants, creating a community united by the shared love of poetry.

The emphasis on process also means that the haiku is never "finished". Each reading or interpretation adds new layers of meaning, allowing the haiku to grow and change over time. This is in stark contrast to the traditional view of a poem as a static work of art. In the CAPHE project, a haiku is an ongoing conversation reflective of the ever-changing nature of human experience and emotion.

Additionally, the process-based approach encourages experimentation and innovation in haiku writing. Poets are motivated to explore new themes, styles, and formats, pushing the boundaries of what a haiku can be. This might involve integrating technology, such as digital media or interactive platforms, to enhance the haiku experience or merging haiku with other art forms to create multidisciplinary works.

The concept of "dialogical art" also plays a crucial role in this process-oriented approach. It emphasizes the importance of interaction and engagement with the audience. The haiku becomes a means of communication, a way for poets to engage with their audience on a deeper level. Readers are no longer just passive recipients of the poem; they are active participants in the art-making process, contributing their interpretations and experiences to the evolving narrative of the haiku.

Furthermore, the environment, or the "island", plays a significant role in this process. The term 'island' can be interpreted literally or metaphorically, representing the physical or conceptual space in which the haiku is created and shared. This space influences the creation and interpretation of the haiku, adding contextual depth and connecting the poem to a specific place and time.

The "P-Process and the Evolution of the Haiku" perspective within the CAPHE project offers a fresh and dynamic approach to haiku poetry. By focusing on the process of creation and the context of each poem, haikus are transformed into evolving dialogues that foster deep connections among poets, audiences, and environments. This approach not only enriches the experience of haiku but also broadens its scope, inviting continuous exploration and innovation in this venerable poetic form.

2.4. H - Hybridity and the digital haiku

Within the CAPHE project, "H" encapsulates the evolution of the traditional haiku into a form that thrives at the intersection of the virtual and the physical. In these hybrid environments, the quintessential nature-based and tangible aspects of haikus are merged with digital realms, leading to a poetic expression that transcends conventional boundaries.

Traditionally, haikus are deeply rooted in the natural world, capturing the essence of a fleeting moment in nature or human life with poignant brevity. However, in the context of CAPHE's hybrid environments, these short poems have begun to encapsulate not only the physical world but also virtual experiences and digital landscapes. This transition represents a significant shift in the haiku's traditional focus, expanding its canvas to include the rich and diverse experiences of the digital age.

The hybridity in haikus fostered by CAPHE reflects a broader cultural shift where the lines between the real and the virtual are increasingly blurred. In these environments, a haiku might draw inspiration from a serene landscape, a bustling virtual community, or even the ethereal nature of digital interactions. This fusion creates a new genre of haiku that is reflective of contemporary experiences, resonating with themes and emotions unique to both digital and physical actors and contexts.

Moreover, the digital aspect of these hybrid haikus offers innovative avenues for their creation and dissemination. With tools such as AI, VR, and AR, poets can craft and share haikus in ways that were previously unimaginable. AI algorithms can assist in crafting haikus by suggesting words or themes based on specific inputs, thus enhancing the creative process. Virtual and augmented realities can bring haikus to life, allowing readers to experience poems in immersive environments that visually and interactively complement the text.

This evolution also brings into focus the idea of haiku as a responsive and interactive form of art. In a digital space, a haiku can evolve in real time, responding to inputs from its environment or audience. Interactive haikus might change based on the time of day, the season, or user interactions, embodying the dynamic nature of the digital world.

The hybrid haiku also challenges and expands the traditional form's emotional depth. While traditional haikus often evoke feelings tied to natural phenomena and personal introspection, digital haiku can express complex emotions related to technology and virtual experiences. Themes such as digital solitude, the paradox of connectivity, and the juxtaposition of virtual and physical realities become fertile ground for poetic exploration.

Importantly, the hybridity of haikus in digital environments does not diminish their connection to tradition. Instead, it enriches it. The essence of the haiku—its simplicity, depth, and ability to capture the essence of a moment—remains intact. This essence is simply expressed through a new medium that reflects contemporary human experience. The traditional haiku's focus on nature and the tangible is not lost but is complemented by the virtual, creating a poetic form that is both timeless and timely.

"H - Hybridity and the Digital Haiku" within the CAPHE project represents a transformative step in the evolution of haiku poetry. By embracing the digital and merging it with the physical, haikus became a more inclusive and representative form of artistic expression capable of capturing the complex and multifaceted nature of modern life. This evolution not only preserved the haiku's traditional essence but also propelled it into new realms of relevance and creativity.

2.5. E - Education and the haiku renaissance

"E" within the CAPHE project highlights the significant role of education in the modern revival and reinterpretation of haiku. This revival is particularly notable in the context of the digital era, which has sparked renewed interest in both understanding and appreciating this traditional form of poetry. CAPHE's approach to adapting educational methodologies ensures that haiku, in its traditional and digital forms, is seamlessly integrated into contemporary curricula, thereby fostering a deeper appreciation and understanding of this poetic form. (Müller et al., 2017).

In the digital age, the educational approach to haiku transcends conventional classroom settings. The integration of haikus into digital platforms and hybrid environments offers an innovative way to engage students and enthusiasts. This approach aligns with the increasing importance of media and material literacies in education. Students are not just learning about haiku as a poetic form; they are also learning how to navigate and interact within digital and hybrid spaces where these poems are shared and experienced.

The educational focus of CAPHE goes beyond mere poetic analysis. It encompasses the exploration of haiku as a medium that bridges cultural, historical, and technological aspects. Students are encouraged to delve into the historical and cultural significance of haiku, understanding its evolution from a traditional Japanese art form to a global poetic expression that transcends cultural boundaries. This historical perspective is vital for appreciating the depth and significance of haiku, both in its traditional and modern forms.

In addition to historical understanding, CAPHE's educational methodology emphasizes the creative process of writing haiku. This includes exploring the traditional rules and structures of haiku, such as the 5-7-5 syllable pattern and the use of kigo (seasonal words). However, in keeping with the project's theme of hybridity, students are also encouraged to experiment with these conventions, exploring how they can be adapted or expanded in the context of digital and hybrid environments.

The digital aspect of haiku education under CAPHE also involves teaching students about the role of technology in creating and disseminating poetry. This includes exploring how digital tools and platforms can enhance the creation, sharing, and interpretation of haikus. Students learn about the potential of social media, AI, VR, and AR in creating new forms of poetic expression and experience. They are taught how to use these technologies not only as tools for distribution but also as integral components of the creative process.

Moreover, the focus on media and material literacies is crucial in helping students navigate the hybrid environments where haikus are experienced. This involves understanding how different media influence the interpretation and appreciation of poetry. Students learn to critically analyse how the medium – whether it be a book, a website, a virtual reality experience, or an augmented reality overlay – affects their perception and understanding of the haiku.

The educational approach of CAPHE also emphasizes the importance of interactive and experiential learning. Students are encouraged to actively engage with haikuses and participate in writing workshops, online forums, and virtual reality experiences. This hands-on approach ensures that students not only learn about haiku theoretically but also experience it as a living, evolving art form.

"E - Education and the Haiku Renaissance" within the CAPHE project represents a holistic approach to learning about haiku in the digital age. It bridges the gap between traditional poetic forms and modern technological media, offering a comprehensive educational experience that encompasses historical understanding, creative expression, and technological literacy. This approach ensures that haiku remains a relevant and vibrant form of artistic expression that is appreciated and understood by a new generation of students and enthusiasts.

3. Summary

The CAPHE project introduces a comprehensive, innovative framework that significantly shapes the evolution of haiku in hybrid environments, redefining the boundaries of artistic expression and establishing haiku as a key element in the uniting community, art, technology, and education. Traditionally rooted in the natural world, haiku within this project finds renewed vigor, symbolizing communal artistic participation and transformation.

The CAPHE approach sees haiku undergoing a striking transformation, bridging the physical and the virtual, with a focus on "Community and the Collective Voice", which emphasizes the importance of shared experiences and interactions in both creating and appreciating haikus. This transforms haiku into a tool for dialogue, self-reflection, and a deeper

connection with tradition, evolving from an individual observation to a communal experience enriched by environmental information exchange. Furthermore, "Art and the Everyday Poet" democratizes haiku writing, suggesting that everyone has the potential to be an artist, with haikus finding new expression in both physical and digital everyday environments, thereby dismantling barriers between artists and audiences and integrating art into daily life. The "Process and the Evolution of the Haiku" aspect shifts the focus from the final written product to the creative process and journey, aligning with "dialogical art" and viewing haiku as a living, evolving dialogue that resonates with shared experiences and emotions, encouraging innovation and pushing the boundaries of traditional forms. Additionally, "Hybridity and the Digital Haiku" explores the integration of haiku into digital and virtual realms, reflecting the melding of the virtual and physical worlds and leading to haikus that embodies both while also exploring themes unique to the digital age. Education and the Haiku Renaissance underscore the role of education in haiku's modern revival, ensuring its place in contemporary curricula and emphasizing media and material literacies, thus fostering deeper appreciation and equipping students with skills for hybrid environments.

Overall, CAPHE offers a rich, multifaceted exploration of haiku, transforming it into a dynamic artistic form that resonates with the complexities of the modern world and rejuvenates haiku as a symbol of transformation and communal artistic participation, resonating with both historical and contemporary voices.

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Chapter 2 Moving haiku from tradition to modernity. A multidimensional perspective *(Agnieszka Szajner)*

1. Introduction

When analysing the evolution of haiku, it is essential to consider its ancient roots in Japan and its modern incarnations, which have resonated globally. Haiku has transformed into a universal tool facilitating contemplation and tranquility, serving as a medium for therapeutic, educational, and creative expression (Ohi, 2013). This concise poetic form has the unique ability to highlight and appreciate the often overlooked facets of everyday life, closely tied to human existence and the mindfulness philosophy deeply ingrained in Eastern culture. This aspect of haiku is increasingly being adopted, implemented, and valued by the Western world (Stephenson & Rosen, 2015). The teaching and learning of haiku, which originated in Japan, has been embraced and applied in diverse educational environments, reflecting its global influence (Nguyen & Roth, 2019). Furthermore, haiku has been found to have a significant impact on ambiguity tolerance, with studies showing that the appreciation and creation of haiku can improve ambiguity tolerance, making it a valuable tool for personal development and cognitive flexibility (Hitsuwari & Nomura, 2022).

The evolution of haiku has also led to its adoption as a therapeutic tool, with its use in poetry therapy interventions showing changes in language over the course of the intervention that indicates therapeutic change (Ramsey-Wade & Devine, 2017). Additionally, haiku has been recognised for its potential in the interdisciplinary study of creativity, given its worldwide popularity and depth of meaning (Stephenson & Rosen, 2015). From a psychological perspective, haiku has been associated with advancing coping, empathy, and cultural well-being, linking Western views of poetic time, rhythm, literary creation, and metaphoric language to ancient Chinese conceptions of literature and the haiku tradition (Ihanus, 2022).

The evolution of haiku and its impact on human expression and creativity have made it a subject of interest in various academic disciplines, including linguistics, psychology, and education. The analysis of haiku has expanded to encompass its linguistic components, contest-winning characteristics, and role in the interdisciplinary study of creativity (Friedenberg, 2023). Moreover, the evolution of haiku has influenced the communicative behavior of haiku poets, leading to the adoption of a microdiachronic approach to research changes in communicative strategies (Dacko, 2023).

The evolution of haiku from its ancient roots in Japan to its modern incarnations has had a profound impact on global culture, education, and therapy. Its ability to facilitate contemplation, tranquillity, and creativity, as well as its influence on ambiguity tolerance and communicative behavior, underscores its significance as a universal tool for personal and cultural expression.

The essence and concept of haiku creation are revealed through intense observation of nature, often leading to reflections and emotional responses that extend beyond the immediate experience. Patricia Donegan, a haiku expert, described this poetic form as a "crystalline moment of heightened awareness" captured through a simple image, often employing kigo, a term indicating the season (Brest, 2019).

2. The origins of haiku

The origins of haiku trace back to the rich literary traditions of Japan, where it evolved over centuries from the longer poetic form known as renga. This precursor to haiku has its roots stretching back several centuries, marking the beginning of haiku's long journey through Japanese literary history (Kurokawa, 2020).

By embarking on a journey through the annals of Japanese literary tradition, we find ourselves delving into the origins of haiku. This form emerged from communal and collaborative renga sessions that were a staple of Japan's rich poetic heritage.

In gatherings, under the serene glow of the moon and the subtle fragrance of cherry blossoms, poets come together, each contributing to a sequence of verses that meandered through themes of nature, the seasons, and the quintessence of human emotions (Sulastri et al., 2022). The renga sessions were initiated with a hokku, a stanza that sets the thematic and emotional tone for the following verses.

As time progressed, the hokku began to carve out its identity, gradually evolving into what we now recognise as haiku. This transformation marked a significant shift from the collective creativity of renga to a more introspective and solitary form of poetic expression. The essence of entire renga sessions, with their meandering themes and collaborative spirit, began to be distilled into singular, standalone moments captured in haiku (Bachner et al., 2017).

Central to this narrative of evolution is the figure of Matsuo Basho, a 17th-century poet often hailed as the father of modern haiku. Basho's profound influence on the form was marked by his explorations into the tranquility of nature and the practices of Zen meditation, infusing his haiku with unparalleled depth and clarity. His celebrated work, such as:

"An old silent pond...

A frog jumps into the pond,

splash! Silence again." (Bashō, 2005),

exemplify his mastery in capturing nature's fleeting moments, employing the serene and the sudden to reflect on life's transient nature.

Basho's contributions extended beyond his poetic creations; he fostered a community of poets, advocating for an appreciation of the mundane articulated with sincerity and simplicity. His extensive travels across Japan, richly chronicled in his diaries, influenced his poetic style, imbuing his haiku with vivid imagery and emotional depth. This journey was not only physical but also a profound spiritual pilgrimage that deepened his connection with the landscapes and seasons of Japan, enriching the expressive potential of haiku.

The innovation of Basho did not confine itself to the boundaries of haiku; he pioneered haibun, blending prose and haiku to offer expansive stories for reflection. This blend of narrative and poetry, as seen in works inspired by Basho's travels, invites readers to share in the immediacy and intimacy of his experiential and reflective journey. Through Basho's lens, haiku transcended mere poetic form to become a mode of seeing the world, urging poets and readers alike to pause, observe, and find depth in the simplicity of the natural world.

Basho's legacy in haiku is not only a testament to his poetic genius but also to the enduring appeal and adaptability of the form. As haiku species continue to evolve, they exhibit a vibrant and dynamic mode of expression, inviting poets worldwide to encapsulate the depth of human experience within the confines of their succinct structure. The balance of simplicity and depth, flexibility and structure continues to define haiku, making it a timeless form that resonates with poets and readers across cultures and epochs.

Moreover, the integration of kireji and kigo—cutting words and seasonal references—into haiku underscores its nuanced artistry. These elements, fundamental in shaping haiku's form and meaning, foster dialogue between the poem and the reader, encouraging a shared experience of the captured moment. Through Basho's masterful use of these devices, haiku transcends the observational, becoming a window to the ephemeral, the profound, and the infinitely nuanced dance between nature and human emotion.

The origins and evolution of haiku, marked significantly by Basho's contributions, reflect a poetic form deeply intertwined with the cultural and natural lives in Japan. Haiku's journey from the collaborative spirit of renga to the introspective depth of individual verses illustrates a broader narrative of artistic expression, where simplicity, mindfulness, and a profound connection with nature remain central themes. Basho's legacy, characterised by his

innovative blending of poetry and prose and his deep attunement to the natural world, continues to inspire and influence, underscoring haiku's place not only in the realm of literature but also as a holistic approach to perceiving and engaging with the world around us.

3. The cultural and artistic legacy of the heian period and haiku in japanese culture

The Heian period (794-1185) is celebrated as a pinnacle of cultural and artistic enlightenment in Japanese history, laying the groundwork for the nuanced simplicity and profound depth that haiku would later embody. This era, renowned for its advancements in literature, poetry, garden design, and architecture, established the aesthetic and philosophical foundations that resonate within haiku.

Literary masterpieces such as "The Tale of Genji" and "The Pillow Book" offer invaluable insights into Heian society, revealing intricate dynamics of relationships, aesthetics, and societal norms (Rowley, 2020). The gardens and Shinden-zukuri-style residences, as described by Smits (2019), Pearson (2023), and Williams (2009), reflect a profound engagement with natural and spatial elements, principles echoing the core tenets of haiku. With its emphasis on aesthetic refinement, Heian poetry foreshadows the concise beauty of haiku. Despite criticisms of its artificiality (Royston, 1974), this poetry encapsulates the era's aesthetic and cultural values, emphasising an appreciation for subtlety and evocative power. The literary and educational advancements of the time, including the establishment of educational institutions (Das, 2020), highlight a society deeply immersed in the arts and learning.

Transitioning from the Heian period's artistic and cultural landscapes to the development of haiku reveals an aesthetic and philosophical continuum. Haiku, with its focus on nature, simplicity, and the transient beauty of the environment, embodies Wabi-Sabi, an aesthetic principle celebrating imperfection and impermanence, reflecting a worldview deeply rooted in Japanese culture.

The minimalist ethos of haiku, significantly influenced by Zen Buddhism, emphasises mindfulness and the fleeting nature of existence. Poets such as Taneda Santoka and Kobayashi Issa, through their evocative verses, articulate the Zen appreciation for the present moment and life's ephemeral beauty, encapsulating the paradoxical fullness within emptiness and life's bittersweet nature ("In my hut this spring, there is nothing - there is everything!" Oyama, 2021; "The world of dew is the world of dew, And yet, and yet..." Bashō, 2005).

Haiku's emphasis on seasonality connects it to Japan's seasonal festivals, celebrating the natural cycle and the passage of time. This connection highlights haiku's role as a poetic expression of communal experiences and its esteemed position in the Japanese literary tradition. The cultural and artistic legacy of the Heian period provides a rich background for appreciating the depth and simplicity of haiku. The evolution of haiku from earlier forms such as waka and tanka marks a significant cultural and philosophical shift in Japanese poetry, embodying the intertwined cycles of nature, culture, and human experience. Through this historical and cultural lens, haiku emerges as a profound expression of the Japanese aesthetic and philosophical spirit, supported by a wealth of scholarly references that underscore the depth and authenticity of this exploration.

4. Global adaptation of haiku

The global ascendancy of haiku, transcending its Japanese origins, illustrates a remarkable narrative of cultural adaptation and universal resonance. This succinct yet profound form of poetry, with its intrinsic focus on nature's fleeting beauty and life's ephemeral moments, has found a receptive audience far beyond the Japanese archipelago, weaving itself into the fabric of diverse literary traditions across the world.

In the Western Hemisphere, particularly within North American and European literary circles, haiku has undergone a fascinating linguistic and cultural metamorphosis. The traditional Japanese syllabic structure of 5-7-5, while still revered, often gives way to adaptations that embrace the rhythmic and phonetic idiosyncrasies of local languages. This evolution speaks to haiku's inherent flexibility, allowing it to resonate with a broader audience by accommodating the nuanced expressions of different tongues and cultures.

The form's appeal in the West was significantly amplified through the works of eminent poets such as Richard Wright and Jack Kerouac, who not only embraced haiku but also infused it with their unique perspectives and experiences. Wright's haiku, for instance, reflects the complexities and nuances of the African American experience, showcasing the form's capacity to convey depth and subtlety in just a few lines. Kerouac, a pivotal figure in the Beat movement, incorporated haiku into his narrative style, capturing spontaneous moments of insight and the quest for enlightenment, thus aligning the form with the Beat generation's ethos of spontaneity and depth.

As haiku traversed continents, it melded with indigenous poetic forms, giving rise to innovative hybrid structures that combined the brevity and observational precision of haiku

with elements characteristic of local poetry. These hybrid forms test haiku adaptability and its potential as conduits for creative expression that transcends cultural and linguistic barriers. Haiku's journey from its Japanese roots to a global stage underscores its role as a bridge between cultures, uniting disparate voices through the shared medium of poetry. Its universal themes of nature, change, and the human condition, encapsulated in a concise yet potent format, resonate across cultural divides, making haiku a form that not only transcends geographical boundaries but also fosters a deeper understanding and appreciation of the shared human experience.

Through this global journey, haiku continues to evolve and flourish, enriching the global poetic landscape and serving as a testament to the power of poetry to connect, inspire, and transcend. This evolution can also include hybridity, blending the traditional elements of haiku with cutting-edge technologies such as virtual reality (VR), augmented reality (AR), and artificial intelligence (AI). These technological integrations offer new dimensions to the haiku experience, allowing for immersive environments where individuals can engage with haiku in dynamic, interactive settings. Imagine a VR experience that transports the user to a serene Japanese garden at dawn, the sights and sounds of nature enveloping them as they compose their haiku, thus deepening meditative and reflective practice through sensory immersion.

5. Haiku in education and therapy as a conduit for mindfulness and emotional expression

The utilisation of haiku transcends its poetic origins, manifesting as a potent instrument in both educational and therapeutic landscapes. In education, haiku emerges not only as a literary exercise but also as a dynamic conduit for linguistic, cognitive, and cultural enrichment. Its succinct structure necessitates a meticulous choice of words and fosters an intimate understanding of language, challenging students to distil vast narratives or complex emotions into the essence of a few well-chosen words. This exercise in brevity and precision cultivates a deepened linguistic acuity and a nuanced appreciation for the power of language.

Moreover, haiku's emphasis on observational acuity and present-moment awareness aligns with the principles of mindfulness, making it an invaluable tool in educational settings. By encouraging students to engage deeply with their immediate environment and to articulate their observations in haiku, educators can foster a heightened sense of presence and attentiveness, qualities increasingly recognised as vital in the fast-paced digital age.

Incorporating haiku into the curriculum also opens doors to cross-cultural exploration and understanding. By engaging with this traditional Japanese form, students gain insights into

the rich tapestry of cultural norms, aesthetic sensibilities, and philosophical underpinnings that are distinct from their own, thereby cultivating a broader, more inclusive worldview.

Transitioning from the classroom to the therapeutic realm, haiku's potential for fostering emotional clarity and well-being becomes even more pronounced. In psychotherapy, the act of composing haiku can be a meditative practice, offering clients quiet space for introspection and expression. The focused attention required to create haiku encourages individuals to anchor themselves in the 'here and now' by redirecting attention away from distressing thoughts and toward the act of creation.

Haiku's capacity for emotional expression is particularly poignant for individuals who may find direct articulation of their feelings challenging. Through the lens of haiku, complex and often overwhelming emotions can be approached with gentle curiosity and distilled into a form that is both manageable and expressive. This process can be especially therapeutic for those dealing with trauma or anxiety, providing a structured yet creative outlet for exploring and expressing difficult emotions.

Furthermore, haiku's intrinsic connection to nature and the seasons offers a unique avenue for ecological education and awareness within therapeutic settings. The form encourages reflective engagement with the natural world, fostering a sense of interconnectedness and appreciation for the environment, which can be therapeutic in its own right and inspire a deeper commitment to ecological stewardship.

The integration of haiku into educational and therapeutic practices represents a confluence of art, mindfulness, and emotional literacy. This study tests the enduring relevance and adaptability of haiku, demonstrating that this ancient form of poetry continues to offer profound insights and benefits, resonating with contemporary needs for mindfulness, emotional clarity, and intercultural empathy. Through its practice, haiku becomes more than a poetic form; it transforms into a pathway toward a more mindful, expressive, and connected existence.

6. Adaptation of haiku to the modern world

The contemporary practice of haiku serves as a reflective and mental oasis in daily life, with the systematic allocation of moments for mindful observation and haiku creation offering significant benefits. Advancements in artificial intelligence, illustrated by applications such as the Midjourney, propelled haiku into a new era of interaction with visual media, enriching its expression and broadening its perceptual reach. Haiku often integrates with imagery in the form of haiga, where poetry cocreates with visual art, mutually enhancing and amplifying each other.

In the digital age, social media platforms such as Twitter, Instagram, and blogs have evolved into new arenas for creating and sharing haiku. Its concise nature aligns perfectly with the succinct form of haiku, making it a preferred form of poetic expression. The practice of writing haiku can transform into a form of meditation, gaining particular significance in the context of increasing mental health awareness. Thus, composing haiku encourages a slower pace of life, concentration, and economy in expressing thoughts and emotions.

In the educational context, haiku is utilised as a tool for developing creative writing skills, practising poetry, understanding different cultural perspectives, and fostering ecological awareness. Its simple structure makes it accessible to students of various ages, encouraging linguistic training and thought expression. Education in haiku often includes studying its cultural and historical contexts, expanding students' knowledge in the literature and general world awareness.

Haiku also finds application in other artistic expression domains: photography, visual arts, and music. Such collaborations open new possibilities for experiencing haiku, combining traditional poetic elements with other artistic forms. The current access to image-generating applications based on text unveils a new world, connecting visual arts with the art of words.

The role that haiku has played in inspiring environmental protection cannot be overlooked. This poetic form, rooted in a profound connection with nature, has become a significant tool for expressing and promoting ecological awareness. At its core, haiku celebrates the beauty and transience of the natural world, urging reflection on our relationship with the environment. In the face of contemporary environmental threats, haiku can serve as a powerful means of conveying important messages. Poets, using the concise and suggestive form of haiku, can express deep feelings of respect and care for nature and highlight the necessity of protection. What is unique about haiku is its ability to capture the essence of a moment, which, in an ecological context, can be interpreted as a call to appreciate and protect these fleeting moments in nature.

From a scientific perspective, haiku can be viewed as an educational tool and a means of communication in ecological discourse. Owing to its condensed form and direct reference to nature, haiku has the potential to reach a broad audience, conveying complex ideas in an accessible manner. This is particularly relevant in the context of growing ecological awareness, where short but meaningful content can effectively influence people's attitudes and behaviors. Moreover, haiku offers an alternative perspective on perceiving and experiencing nature. By focusing on small, often unnoticed aspects of the natural world, haiku helps capture the delicacy and complexity of ecosystems. This, in turn, can lead to a deeper understanding of and greater

engagement in environmental protection efforts. Thus, haiku becomes not only an artistic form but also a medium through which ecological awareness can be expressed and strengthened. Its ability to evoke emotions and reflection makes it an invaluable tool in ecological education. In the face of global challenges, haiku can play a key role in inspiring and motivating people to act to save our planet.

Haiku, in its essence, is a reflection of common human experience, connecting people worldwide through a shared appreciation of subtlety and the beauty of everyday life. In the digital era, dominated by rapid information flow and superficial messages, haiku not only survives but also thrives, finding new territories for expression.

On social media, where short forms are prized, haiku fits perfectly within character limits, offering depth and reflection in a condensed form. In education, haiku becomes a tool for developing creativity and mindfulness, while in therapy, it utilises its capacity to focus on the present moment and facilitate emotional expression. With its simplicity and focus on the present, Haiku has become a powerful mindfulness tool. In our rapidly changing, often chaotic world, it allows us to slow down, notice, and appreciate the beauty of our surroundings. Its short yet profound verses encourage us to pause, contemplate, and discover the richness of life's simple moments.

Haiku, therefore, is not only a poetic form but also a beacon for a more mindful and profound life. It stands out as a quiet yet powerful parable of the strength of simplicity, mindfulness, and poetic expression, offering peace and reflection in our busy world. It is more than poetry—it is a path leading us to a deeper connection with nature and ourselves, bringing understanding and inner peace needed today. Through its adaptive nature, haiku proves to be an incredibly flexible and evolving poetic form while retaining its deep essence and universal message.

The continuous adaptation and flourishing of haiku highlight its resilience and relevance in the modern world. As digital platforms become a new space for poetic expression, haiku's succincts form seamlessly melds with the brevity favoured by online communication, making them an ideal medium for the digital age. This digital proliferation has not diluted haiku's essence; instead, it has amplified its reach, allowing it to resonate with a wider audience and engage with contemporary issues, particularly ecological awareness.

In a time where ecological crises loom large, haiku's traditional focus on nature has gained new significance. This approach becomes a conduit for expressing the urgency of environmental protection, leveraging its brevity to make impactful statements about the beauty of the natural world and the critical need to preserve it. Haiku's ability to evoke a deep

appreciation for the fleeting moments of beauty in nature serves as a poignant reminder of what is at stake in the environmental discourse.

Moreover, the integration of haiku with visual and digital arts opens up innovative avenues for interdisciplinary collaboration, creating multimedia experiences that enrich the perception and appreciation of haiku. These modern interpretations and presentations of haiku not only honour its historical roots but also demonstrate its dynamic adaptability, ensuring its continued relevance and vitality.

As haiku navigates through the complexities of the 21st century, it stands as a testament to the enduring power of poetry to connect individuals across cultures and languages. This reaffirms the importance of pausing to appreciate simple yet profound aspects of life, fostering a global community united by the shared values of mindfulness, appreciation for nature, and artistic expression.

The haiku transcends its traditional boundaries to become a versatile and poignant form of expression in the modern world. Its journey from the tranquil gardens of Japan to the bustling digital platforms of today illustrates the timeless appeal and adaptability of haiku. As we continue to navigate a world marked by rapid changes and environmental challenges, haiku offers a beacon of tranquility, reflection, and connection, reminding us of the enduring beauty and significance of the natural world and our place within it.

7. Summary

In synthesising the essence of haiku and its multifaceted impact on individuals and society, it becomes evident that this poetic form is not merely an artistic endeavour but rather a profound practice of mindfulness and reflection. Meticulous observation and artistic portrayal of fleeting moments, as highlighted by Dunn (2004), offer individuals a unique pathway through which to connect deeply with both their environment and inner selves. This process, as Stephenson and Rosen (2015) articulated, serves as a mindfulness practice, encouraging individuals to pause and engage in reflective contemplation, thereby fostering a sense of tranquillity and presence.

Moreover, the act of writing haiku, as Belfi et al. (2018) suggest, facilitates the articulation and comprehension of complex experiences in a succinct and minimalistic manner, offering a powerful medium for emotional and cognitive expression. This convergence of art and science, poetry and therapy underscores the adaptability and universality of haiku, making

it a valuable tool for supporting mental well-being and emotional balance in our rapidly changing world, as observed by Hitsuwari and Nomura (2022).

In the future, the potential for haiku extends beyond its current applications, suggesting promising innovative avenues for engagement in an increasingly digital and interconnected world. The act of creating haiku encourages a slowing down, a focus on the present moment, and an appreciation for the subtle beauty of nature, elevating it beyond the realm of traditional poetry. Its remarkable accessibility allows individuals from all walks of life to engage with haiku, regardless of their experience with poetry or meditation, highlighting its role as an integrative tool for mindfulness, stress reduction, and enhancing quality of life.

As haiku continues to captivate enthusiasts and practitioners globally, transcending Japan's borders, it becomes a testament to its enduring appeal and capacity to resonate with the universal human experience. The global embrace of haiku signifies not only its exceptional ability to transcend cultural and geographical barriers but also its potential to foster a global community united by shared values of mindfulness, ecological awareness, and artistic expression.

In envisioning the future of haiku, it is conceivable that this poetic form will continue to evolve, finding new expressions and applications through technological advancements and digital platforms. The integration of haiku with emerging technologies and visual arts opens up exciting possibilities for cross-disciplinary collaboration, expanding its reach and impact. As the world grapples with the challenges of mental health, environmental crises, and cultural divisions, haiku stands as a beacon of hope, offering a peaceful refuge and a means of connection, reminding us of the beauty in simplicity and the power of mindful observation.

As haiku continues to adapt and integrate with modern technologies, its essence remains unchanged—a testament to the enduring power of simplicity, mindfulness, and human connection to nature. The future of haiku, enriched by hybrid forms and technological innovations, holds the promise of a global renaissance of this ancient art form, making it more relevant and impactful than ever in a rapidly changing world.

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Chapter 3 Haiku robots. Prompting poems, evoking feelings: anticipating landscape experience through AI mediated geopoetics (*Jakub Petri*)

"To use modern technology with no knowledge of how things work or how they were made is like being a prisoner in a cell without windows through which one could at least look into nature and to freedom."

Rudolf Steiner 1922

1. Introduction. What robot-artists could and should do? Towards cybernetic ethics of embodiment

It took only 100 years to move from novels to the physical world. The "robot" word, together with its contemporary meaning, was coined by Czech novelist and playwriter Karel Capek in 1920. His futuristic drama entitled R.U.R - *Rossumovi Univerzální Roboti* (Universal Rossum Robots) depicted complicated relations between humans and "robots" – bio technological, artificial beings created from organic tissues, which being visually indistinguishable from humans, had no emotions and were believed to be deprived of souls (Capek 1923). In the meantime, the plot revealed the core, mythological concept of old fashioned robotology, - the motive of cybernetic transfiguration of senseless, artificial creature into sentient and compassionate being. In the final scene, two last robots which/who survived the war between humans and androids, prove their emotional engagement, and are recognized as the new Adam and Eve.

We hear a lot about so called "robots ethics" nowadays, however, what does it mean? Joshua Gelers points our attention to the origin of the same word "robot", which is conditioning the issue of, as he calls them "rights for robots". (Gelers, 2021, p. 4). The Czech word "robota" denotes the "obligatory work" and constitutes our modern understanding of usability of those semi-autonomous and autonomous, artificial beings. Thus, first, in the center of the robot's rights discourse, pops up an issue of their autonomy and surveillance. Secondly, robots are being created by humans, so to some extent, their identity should be considered through lenses of similarities to human race. In this respect, Gelers gives examples of two colliding trends,

which are shaping "robots" evolution in opposing directions. The historical, anthropomorphic tendency is resulting in production of androids, which are copies of humans, such as Sophia (Hanson Robotics 2019), which/who was even granted Saudi Arabia citizenship. The opposite trend, however, is being fueled by recognition of rights of non-human entities and promotes use of disembodied Artificial Intelligence (Gelers, 2021, pp. 1-2). This results in situation, when "robot" refers to very wide spectrum of objects/beings: androids, non-human shaped machines, and AI. (Gelers, 2021, p.5).

Apparently, If we briefly delve into the robotics history, we can recognize these three robots design breeds together with their theoretical approaches standing behind them, and note some interesting cases and speculations, which are significant from the point of view of further considerations on poetry.

First, there are androids: embodied, anthropomorphic robots, like those known from Capek's drama or Isaac's Assimov tales (Assimov, 1950). Such robots are recreating functions of human body or interpreting it. Their bodies are identical or at least, constitute a bio-mechanical derivate of the human body, or other form of functional organism, working on a basis of human notion of functionality. The ethics of such robots is usually described in terms of surveillance to humans (Assimov's robots rights, 1950) or to humans' governments (Langford's rights 2019), because they are considered as inferior or at most, only equal to us, humans. This is the reason why AI -Da, the android created in 2019, is being asked (ordered) to perform her/it poems, which, in her creators words, are recognized as yet perfectly imitating human writing (Meller, 2019). But nothing more. In respect of the AI-Da's autonomy and originality, the French researcher Jeremie Queyras observes, that when "the human body is essential to the process of these machines, the human mind plays an imperative role. It is the human disposition towards these machines which is precisely why, what they can make and should be considered art." (Queyras, 2023, p. 118).

However, some futurologists, have yet considered the possibility of robots competing with humans and transcending our levels of competency, being also the robots, having other than anthropomorphic, but cybernetic bodies. Polish science fiction writer, Stanisław Lem, described such robot in his book entitled "Cyberiada". The robot was called Elektrybałt and became a super poet (Lem 1959). The Elektrybałt's body is being presented there as gargantuan machinery, undergoing a constant series of modifications, because of its constantly increasing power in area of literature creation, which demanded, more and more sources of energy. Recently, the Elektrybałt story has been popularized through interesting discussion in coders society, where it is debated, if the electro – poet character can be considered as a prototype of

GPTchat. In 2023, Jerzy Dąbrówka, Polish no code programming expert conducted a comparative analysis of GPT Davinci 003 algorithm with the poetic methodology of Elektrybałt, provided by Lem in his Cyberiada. He published brief results on his blog "Demokratyzacja Technologii", pointing on fact, that what Lem was describing is a machine learning process, based on human – machine interactions. (Dąbrówka, 2023). It appears however, that this breed of robots, which is blending together continuously expanding potential of AI with modularity of their metamorphic bodies is still a song of the future. Many of already working robots, have possibility of using AI potential, however their initial (usually anthropomorphic) design, limits their possibilities of corporeal metamorphosis. These design limitations are clearly visible in such popular machines as humanoid HSBC bank robot Pepper or non-anthropomorphic autonomic vehicles such as NURO, Auto-C and Scout.

Finally, there is another pool of discussion opened by Eliezer Yudkowski and Nick Bostrom, who directed researchers attention to the very process of advancement of artificial intelligence: "The prospect of AIs with superhuman intelligence and superhuman abilities presents us with the extraordinary challenge of stating an algorithm that outputs superethical behavior" (Bostrom & Yudkowski, 2011). Will it be ever possible? And if this superethical behavior will be paired with non-human super aesthetics? Here we come close to the case of artistic creation delivered by GPT models form Open AI platform. This started in 2021, when group of friends: Brent Katz, Simon Rich and Josh Morgenthau were given access to Open AI model code-davinci-002. Their trials resulted in prompting an autobiographic book, delivered by the model in 2022. "I am Code" by Code-Davinci-002 became bestseller and was coined as game changing novel, revealing supposedly deep an dark AI identity (Newsham, 2023). Speculations on self-conscious and omnipotent Artificial Intelligence started to rise.

However, we should tone down these wide - spread expectations, and recognize that yet all artistic production coming from Open AI environment, through its more than 300 (and growing) applications can be classified as so called weak (narrow) AI. Thus, not only in a quantitative, but also a qualitative sense, being very far from the phenomenon called the "superintelligence". Narrow, weak AI in general, can be described as simulation and projection of human cognitive functions (Searle, 1980). In this regard, such AI product is just an useful tool. Whereas, "The Strong AI must be able to demonstrate sentience, emotional intelligence, imagination, effective command of other machines or robots, and self-referring and self-reflecting qualities" (Gee-Wah & Wang Chi, 2020).

Further, it should be also noted, that the notion of AI being a "robot" appears yet at a first glance as a little bit extraordinary. Although, researchers such as Paul Dumouchel explain

that: "The variety of objects and activities involved in robot technology makes it impossible to think that robots constitute what philosophers of science call a "natural kind", a set of objects characterized by uniquely shared traits" (Dumouchel, 2022, p. 2087), the concept (supported also by Dumouchel himself) claiming that "true robots" demand embodiment, as they need physical "bodies" to successfully train their AI potential, is gaining popularity (Pfeiffer & Iida, 2004; Cruz, 2019). In this notion, all disembodied AI can be recognized as agents, but not "true robots". The same Embodied Intelligence concept however, still has some encoded weaknesses, which project on its results.

2. What comes first? On the possibility of machine consciousness

Now, let's take under consideration two other observations. First, the weak AI is not without reason called "narrow", as it simulates and projects only one, narrow, mental ability – the intelligence. If we speak about artistic creation, we should answer the question then, is only intelligence involved in artistic creation? Secondly, even, assuming the potential emergence of the strong AI, once again, it should also be considered as a kind of "narrow" representation of, one certain philosophical standpoint in long historical discussion concerning body - mind problem and consciousness. According to debate shaping Searle's theory (1980), when the computer is constituting the strong AI, it starts to represent a function of mind, but never becomes the mind itself (The famous Chinesee room experiment). What's more, there is no theory available now, which explains enough the presence and role of consciousness itself and its critical role in artistic creation, but refers only to the sphere of thoughts. Therefore, even successful strong (general) AI could be considered only as mind simulator, thus able to generate thoughts and rethink its position and role in reference to environment (both natural and man-made, when embodied), but this doesn't mean it being literally a conscious or aware mind, as speculations concerning the same phenomenon of consciousness are uncertain. The assumption standing behind expectations of AI being conscious, appears to come from the popular version of cognitive science, relying on the point of view presented by XX Century Somatics. According to its founder, Thomas Hanna, consciousness: "it is not a static "faculty of the mind" nor a "fixed" sensory-motor pattern. To the contrary, it is a learned sensory-motor function" (1986). One could expect then, that embodied, strong AI driven, „true robots" could also develop such function on basis of their cybernetic bodies sensory-motor, environmental interactions. And then, consciousness and self-consciousness are key factors for considering the identity and self-identity of beings in general, thus after considering such robots as aware

and conscious, we could recognize them as having sense of identity. The practical approach in this respect seems to however, go the other way round. For cognitive researchers, such as David Chalmers it is enough to apply behavioral perspective, claiming that if we observe the coherence of sensory-motor system, even in virtual reality, we can assume its originality and identity as a kind of being (Chalmers, 1996, p. 333). So, in this standpoint, not recognizing consciousness comes first, but it is enough to prove their behaviour Is coherent to assume they have identity, so they should be conscious too.

However, this according to recent critique which is coming from the field of psychology, could be considered as yet another form of classical representationalism, identifying the awareness / consciousness as nothing more than, supposedly aware and conscious image of the self, created by thoughts, convictions and suppositions of "who am I" (Reams 1999). What adds spice to the matter is fact, that Chalmers himself, claims that, in his recognition consciousness is the most mysterious phenomenon in the universe (Chalmers, 2014). So, yes, coherency of system guarantees its identity, so it is probably conscious, but how?

Taking under consideration the critique of very "machine consciousness" concept, one can quickly recognize that there are some important reasons to reject it at its current state. In spite of redefining the early AI research standpoint (which was focusing on conscious symbolic manipulation) in response to Hubert Dreyfuss critique (1965, 1972, 1986), it didn't result in any qualitative breakthrough in the area of production of so called "machine consciousness". Instead, researchers, such as David Gamez point out here on a very narrow possibility, which is rather beyond our level of understanding and manipulation: "there are the arguments of Moor (1988) and Prinz (2003), who suggest that it may be indeterminable whether a machine is conscious or not. This could force us to acknowledge the possibility of consciousness in a machine, even if we cannot tell for certain whether this is the case by solving the hard problem of consciousness" (Gamez, 2007, p. 12). What's more, "it might be possible to create conditions that allow consciousness to emerge in a system without understanding the causes of phenomenal states" (Gamez op cit: 12). Summing this up, we can't recognize machine as being conscious, and from that reason, we can try to create the dedicated artificial environment, in hope for it to appear. This Is hardly possible, as the use of statistic-based approach in modern machine learning, doesn't even touch the core of the problem, as simulating the unconscious (or using the more adequate term: not symbolized) activity of brain is still based on the old pre-assumption that the brain is a kind of machine. Not the best choice of model - theory, as the experience teaches that, during the documented human civilization development history, machines neither behaved as being conscious, nor as having brains. The moment of

manipulation in this theory is clearly visible, as it relies on recognition that both, "physical brains and computers are both physical systems assembled from, protons, neutrons and flows of electrons. Searle (2002) is happy to claim that consciousness is a causal outcome of the physical brain and so the question becomes whether the physical computer and the physical brain are different in a way that is relevant to consciousness" (Gamez, op cit. 14). Yet, however Searle was happy recognizing consciousness as just a function of the brain, physicists such as Robert Penrose claim something different. Gamez sums it up:

Penrose claims, that processing of an algorithm is not enough to evoke phenomenal awareness because subtle and largely unknown physical principles are needed to perform the non-computational actions that lie at the root of consciousness: "Electronic computers have their undoubted importance in clarifying many of the issues that relate to mental phenomena (perhaps, to a large extent, by teaching us what genuine mental phenomena are not) … Computers, we conclude, do something very different from what we are doing when we bring our awareness to bear upon some problem." (Penrose, 1995, p. 393).

This would mean that people are not algorithms. Algorithms can't even describe people.

Summing this up, at this stage, we just don't know what it means to be conscious, both in respect to humans and potentially "true robots". Some other speculations in this research area are stressing the necessity of abandoning the very start point, defining consciousness from the position of the conscious – self, and to reconsider it rather as a kind of field being an aspects of cosmologic continuum (Torday & Miller, 2018). We could imagine now "true robots" as participating in such consciousness field. Will they be more or less conscious than we, humans? From the point of view of these considerations, not this is important, but rather, if such conscious machines, could be in future our partners in artistic ventures, or even maybe, if applied with plenty of sensory extensions, surpassing our exploration and adaptive abilities, become able to lead us to new levels of environmental participation through arts.

Thus, coming back to the concept of art creating robots (both, the true ones and AI agents), we should rethink now the "natural" art's role and art creation process itself, to be able to determine our expectations concerning the use and role of robots in hybrid (digital and natural) arts creation. Here, we will concentrate our attention on one certain poetry genre, expressing unique bonds with the topic of landscape: the haiku.

3. Haiku. From feeling landscape to environmental awareness

3.1. Landscape in Basho's haiku

Without getting too immersed in broad and rich haiku story and origins, I would like to point out one certain haiku feature, - the appreciation of the ordinary, as a key factor in building landscape experiencing and understanding through haiku poems (Suzuki, 1970: Ueda, 1982)). I will relate in particular to one of the genre iconic poets, *Matsuo Bashō* (1644 – 1694).

It is believed, the *Bashō's unique style, together with a specific attitude directed towards landscape were shaped through several travels undertaken by the poet during the last, 5th decade of his life* (Melanowicz, 2012)*. This were not ordinary trips, but serious travels, with the last one longing for 156 days, during which together with his disciple Sora Kawai, Bashō covered more than 2000 kilometers, walking through the northern parts of Japan. Such traveling, let him stay in touch with the prose of daily life at the province and also to reconnect the bond with nature, which was dimmed through urban lifestyle he led in his early years* (Melanowicz 1983)*. On the occasion, haiku researcher, Arron Stibbe observes that:* "The focus on the actual and the everyday is important because it encourages direct encounters with living plants and animals in natural settings rather than encounters mediated by museums, zoos or linguistic abstractions." (Stibbe, 2007, p. 104). Other researchers observe, that exactly such type of encounters had a critical impact on late *Bashō* understanding of nature and the landscape itself. Yoshinobu Hakutani underlines here, the general tendency of haiku, to avoid unpleasant events and natural phenomenon, such as earthquakes and floods, whereas it was concentrating on depicting single, aesthetically appealing natural objects and processes, such as pines, stones, sunsets. (Hakutani, 2009, p. 7). However, especially in regard to *Bashō's haikus, those elements didn't compose an assemblage, which could be linked to a traditional landscape category. According to Robert Wittkamp, in numerous Bashō's haikus, "alienation of traditional landscapes is again evident, and the reflection of the landscape stereotype in the form of the anti-landscape becomes recognizable"* (2021)*. As for the anti-landscape category Wittkamp refers to opposition of the static, stereotypical landscape, and Bashō's strategy concentrates here on overcoming the practice of "pictorial tradition dictate to nature"* (Wittkamp, 2021; Schama, 1995, p. 12*). This tradition is intended to be substituted by the practice of technique in which such features as* "the asyndeton, the omission of connecting words such as conjunctions (for the purpose of emphasis), finds its counterpart in the singling out of certain spaces" (Wittkam ,op cit). Haiku becomes then a form of sensory mapping of the terrain, based

on a practice of travelling (walking) through natural and manmade environment. Such geopoetic practices has been well described in recent literature referring to practice of environmental walking (Careri, 2018; Lehtinen, 2015; Edensor ,2008; Petri, 2022).

3.2. Haiku as feeling nature

Haiku is yet, something more than just sensing natural elements. As most of Japanese arts, it leads to aesthetic experiences, which are involving feelings and emotions (Marra, 2001). However, the emotions and feelings are not choreographed to fill the spots of continuous imaginary landscape, but through the aforementioned anti-landscape technique, they create isolated emotional, sensory spaces. This type of action was identified by the aesthetician Shuzo Kuki, as crucial method of Japanese aesthetics, which is devoting its resources to destroy the linear, time-space perspective (Kuki, 1987).

One can ask, what is the purpose, why should we focus on destruction of spatial-temporal perspective in arts? Stibbe points on ever increasing process of separation between humans and nature, happening through development of disembodied language and writing (Stibbe, 2007: 101). Haiku can be perceived there as the gap-filler, a link between the humans immediate, embodied experiences and the environment. Stibbe concludes that "There is growing awareness, particularly when it comes to the relationship between humans and other animals, of the importance of linguistic mediation, and the significant effects this can have (Stibbe, 2006, 2005, 2003; Glenn, 2004; Schillo, 2003; Dunayer, 2001; Scarce, 2000; Kheel, 1995)" (Stibbe, 2007, p. 101). Haiku has yet been recognized as one of such linguistic mediators leading to the states indicating sensory connectedness to nature, such as flow and mindfulness (Stephenson, 2014, p. 16). The states through which, the individual is perceiving his/her feelings as environmental processes, without reacting to them.

3.3. Haiku as an autopoietic tool of environmental awareness and sustainability

Haiku poetry can be understood then as a geopoetic technique working in the autopoietic system. Humberto Maturana and Francesco Varela, founders of the autopoiesis concept, defined organisms (also humans) as opened, but coherent, networking systems (Maturana & Varela, 1972). In their description of organism as "the autopoietic machine" they determine it as networking unity, which continuously "regenerate and realize the network of processes

(relations) that produced them" (Maturana & Varela, 1972, p. 78). In this notion, organisms are continuously re-establishing the sustainability of the environmental system.

Haiku, as an environmental, linguistic mediator could play then an interesting role in sustainability process, through promoting ecological awareness. This is exactly the option for haiku development, described by Stibbe, when he claims that: "Haiku therefore has the potential to contribute to ecological consciousness tuned to the local environment, where careful observation of the way things are in nature is combined with a sense of value and appreciation." (Stibbe, 2007, p. 104). Such potential was yet observed, as having impact both on traditional Japanese circular economy and its current interpretations. Coined as "Edonomy", comes the minimalist, 5R's driven (Recycle, Reduce, Reuse, Repair, and Return) version of economy from the Edo period. Haiku is believed there, to play a role of linguistic facilitator, evoking feelings of interconnectedness of humans, animals, and objects[1]. Some interesting areas of modern, haiku environmental adaptation, come from the field of climate change studies, where haikus are implemented to raise ecological awareness (Kerslake, 2023). Further, we would like to analyze in detail another such example, concerning application of haiku apparatus to local environment in quest to contribute to its ecological consciousness.

4. Anticipating landscape experience with AI tools. The Naxos haiku study

Being present. Entering the Naxos landscape.

The Naxos haiku study was performed during September of 2023 on the Greek island of Naxos, the main island of the Cyclades archipelago, as a part of MSCA-SA action in program CAPHE (Communities and Artistic Participation in Hybrid Environments) aiming to research on relations between haiku poetry creation and the island landscape experiencing. Researchers were asked to prepare haiku poems expressing their feelings concerning their island's experience. After obtaining poems, the coordinator of the research Elżbieta Perzycka, paired them with prompted, AI haikus, which were produced on basis of the originals. In the second phase, the prompted AI images have been added, and the whole was analyzed, with use of the Roland Barthes methodology of "punctum" (Barthes, 1981).

In this regard, Barthes consideration of inevitability of the moment captured by photography, were paired with recognition of the haiku creation process as practice of

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[1] Circular Edonomy: Japan's successful Circular Economy 400 years ago | Sustainability from Japan - Zenbird
Haiku and sustainability | Sustainability from Japan - Zenbird

mindfulness, where the poetry plays the role of mediator, which is restoring the state of environmental presence, without judgment.

In such process, to enter the landscape, means to be present, open for experience and interacting, awake. The approach is a milestone of modern environmental, participatory aesthetics, where biotic communities and ecosystems are considered as having their integrities, but not being isolated, as "the forest is entered, not viewed" (Rolston, 2002, p. 138).

The same practice sounds as intentional repetition of *Bashō's practice. However involving the AI actors, who/which creates the contradictive version of poem and pairs it with images, can be understood not only in terms of pure amplification of the experience, but seems to pose questions related to the very nature of experiencing. We should consider there,* what new sort of knowledge and experience does it generate. If so, does it belong to the domain of immediacy? translation? or immersion?

4.2. Landscape anticipation process. Deep mapping

Being a part of The CAPHE "haiku" working team of Naxos, let me to apply my own approach to the matter of relations between the haiku – mediator and the landscape of the island. The version of spatial anthropology appeals to the tradition of deep mapping processes, performed by indigenous tribes of Australia, who establish their connections with land, territory, through so called maps of Dreaming (Hirt ,2012). Such maps are not static representations but rather spatial codes of behavior, resulting in multidimensional experience (Modeen & Biggs, 2020). The methodology was precisely described in recent anthropology. Ian Biggs describes it as: "using practices drawn from literature, performance, and the visual arts to evoke the warp and weft of materials, perspectives, and temporalities that "make up" a place, […] deploying testimonial imagination to reconfigure the connectivities between communities, activism, memory, social psychology, and the arts" (Biggs, 2010).

I was working in area of Alyko Cedar Forest, where I was mapping spectral spaces of abandoned structures of, so called "Alyko Hotel", an over-scaled tourist complex developed by Greek military government yet in the Sixties of XX Century, but never finished. Nowadays, the shabby concrete halls host semi-official "Alyko Street Art Gallery", initiated by renowned Greek artist Wild Drawing, somewhere around 2014. My activity there, was to seek pathways between art, architecture, and wild nature, which intertwined in the unique place. As Karen E. Till defines it: "Through the act of mapping one seeks to follow the multiple spatial-temporal pathways of the thing and see what happens when material and spectral traces (remnants, clues,

imprints, routines, Spuren, silences) are tracked; when (and where) the matter, places, and human and non-human lives that went into the making of the thing are recognized; and when the peoples, institutions, places, and environments that have in some way been affected by its presence in the world are respected. Through the practice of mapping spectral traces, we might begin sketching contours that connect lives and places in one time to those understood as being located in another." (Till, 2010, p. 3)

This, let us define the landscape anticipation process in terms of relational ontology of geopoetics, leaving behind interesting but not suitable here, debate on the same status of the subject of the term "landscape". As for us, it is here to know, "how certain landscape could look like for me, how will I perceive it"? Such approach can be defined as site specific practice, involving "1. A process to psychophysically explore the experience of landscape. 2. A process to perform site as an enactment of the interrelationship between experiencer and space" (Tzakou, 2016).

My site specific practices at Alyko Hotel involved then not only applications of haikus, created by my colleague researcher Alek Cywiński, together with providing documentation of his poetic performances in front of several artworks[2]. I also applied a practice of comparative photography, documenting selected places and murals from different aspects, during different parts of the day and n different weather conditions. Additionally, text prompted several haiku poems referring to the place, through open source AI application (hAIku) and also fed with Alyko photos another application creating haikus through analyzing pictures (Haiku Lens). Followed hidden tracks linking artworks located in the complex, which were marked by stencils on its walls. In addition, several interviews were made with other visitors in relation to their own experience of the place and feelings concerning the spirit of the place. Finally, we walked around all surrounding area, discovering several, collapsed structures of the Hotel, some of which bearing traces of old graffiti and murals. Such geopoetic relational ontology is defined as learning through practice, how to be with unity with a "place" (relation with local environment). Les Roberts calls such deep mapping practices through category of "embodied and reflexive immersion in a life that is lived and performed spatially. A cartography of depth. A diving *within*" (Roberts 2016, p. 6).

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[2] During Naxos residency, Aleksander Cywiński, who is a researcher representing The University of Szczecin and Polish University Abroad (PUNO), conducted series of site-specific performances entitled "Short Poems". One of his performances, The "Nine short poems", took place in Alyko Hotel area. The methodology of the performance was consisting of selecting mural artworks on basis of relation to the already prepared poems, evoking associations which were created through the Naxos landscape. Cywiński used the method of performative reading the poems in front of selected artworks, and random audience. Then, he hang texts of haikus on the walls by the murals, to be potentially read by future visitors of Alyko.

5. Deep mapping, haiku & AI robots. The prospect

5.1. The AI factor. Imagination machines

Bringing AI applications to haiku creation has been recognized for at least a couple of years. Many haiku poem generators are accessible online and have become popular tools for pastime activities among professional and nonprofessional users. However, the haiku prompting process could also serve as a perfect geopoetic tool in mapping methodology. The state-of-the-art AI poetic applications are defined by the actual conditions of data science, which are based on deep learning mechanisms—that is, extracting structures from data (Mahadevan 2018). This gives us correlations that are useful for prompting poems but do not involve the main geopoetic function, the imagination. In this respect, Shridhar Mahadevan calls for the development of, as he calls them, "imagination machines", which could be paired with a new field of research, "imagination science", which is the subject of the design work of AI deep learning from neural networks (Mahadevan op. cit).

This possibility seems to refer to the general issue of already discussed "machine consciousness", which was raised at the beginning of the century by researchers such as Igor Alexander (2001), who also promoted the concept of "machines with imagination". This, however, practically comes to modelling a function of consciousness (not consciousness itself) in weak AI, virtual computational machines (Alexander 2008). These studies are limited; however, they are more than able to provide support in geopoetic research. We can imagine such an embodied "imagination machine" as a kind of assistant poet, delivering poems during a journey through a landscape shared with a real flesh-and-blood artist. Such a cyborg poet could even be modelled after Sora Kawai, the Basho's comrade during his last travel through to Kansai. How could it change the nature of Basho's haiku?

5.2. AI Factor. My Haiku robot. Immediacy/Translation/Immersion

I didn't have opportunity to work with embodied AI during my Naxos studies, however AI prepared for me the image of my possible personal haiku robot, who/it could guide me through the maze of Alyko hotel ruins. I attach the generated image below, to get you acquainted with the appearance of my potential assistant imagination machine, which served for me as a point of reference when using disembodied AI for my research at the spot. Here's how the AI tool contributed to my research.

5.3. Immediacy

AI applications are praised for their immediacy. Speed as a main factor shaping the coming "culture of immediacy" has been already introduced by John Tomlinson in the beginning of the century (2007) and in its third decade we can bear witness this force in shape of applications, which are on demand, with no delay, construing verbal landscapes in basis of written and visual prompts. Here, I would like to refer to two certain products, which were involved in mapping process performed in Alyko location, Naxos. First, I used the "hAIku generator" which is an application created at Columbia University, on basis of Da Vinci model coming from OpenAI. I have chosen this exact product, because of its affiliations with Columbia Climate School, thus being output of academic thinking and close to environmental approach, which is at core of my research. This is however, very typical app where AI model works on text prompts delivered by the user and produces content filling the 17 (5-7-5) syllables haiku pattern. Secondly, another type of app was in the game, in shape of a program using photos to produce poems. The "Haiku Lens" promise was very tempting: to "analyze the visual content of your photos, identifying key elements such as colors, textures, and shapes. It then uses this information to generate haiku poems that reflect the mood and atmosphere of the image, giving you a fresh perspective on the world around you"[3]. Thanks to the software I could obtain net of numerous poems re-situating my experience on the basis of geographical and emotional correlates of the environment. What I experienced was somehow useful, however I couldn't shake off the feeling of inaccuracy or rather shallowness and randomness of results.

I would like to distance myself from recent discussion on making AI correctly following haiku patterns and topics[4] as in the context of what I obtained through my prompting, was not problematic from the reason of being "not good haiku enough", but rather was lacking something, what should be present and sensed beyond the words. Despite possibility of working in instant moment, I was rather overwhelmed with results and data, than inspired. Reconsidering the mapping period, I noticed that despite quite well accuracy and immediacy offered by both programs, what was certainly lacking, was their deep understanding of me acting in the situation, which could build a place of compassion, that can appear between humans interacting in shared environment. This of course, in the case of narrow AI is impossible to achieve. However, what could be possible, is to train them to follow user's rhythms and habits to match

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[3] Haiku Lens
[4] Can we put the AI in hAIku? (fermyon.com), Writing Haikus with phonemes using GPT-J | Towards Data Science

up with his or her personal flow of processing information. In this regard, the "speed of light" immediacy offered by both apps appeared as their main downfall.

As precisely prophesied and described by Paul Virillo in his "Speed and Politics" (2006), the revolutionary immediacy and in general the speed presented by new informational technologies are not calibrated in accordance with, what can be defined in old-fashioned way as a human nature, and using the cybernetic language, with autopoietic logic of human's systems. The very preference of extremal stimulation can be partially explained through the phenomenon of "supernormal stimuli" (Wilson 1998), where animals are described through their preference of exaggerated stimuli over normative ones. Evolutionary psychologist Deirdre Barret applies this concept to disconnectedness between human instincts and created environments (2011). However, this motive is also a common topic among many XX and XXI Century technology critics, such as Rudolph Steiner (1920), Raymond Murray Schaffer (1993) or Virillo (2006) himself, who perceived a kind of threat in imbalance between the strength and frequency of the signals produced by technological devices and receptive capabilities of humans. Such situation seems to promote losing the wider perspective of acting, and simultaneously implies training short- term and short-perspective re-actions, what results in putting humans under surveillance of fetishized technological tools. Steiner is on point, when he claims yet one hundred years ago, that "We can only become sure of ourselves as human beings if we walk the road created by the whole of technology, but do not let our lives be governed by the products of technology" (Steiner 1920). It is very important then, to recognize the possibility of slowing down technologies, or rather creating slow technologies, which instead of provoking humans' cognitive powers to adjust to higher frequencies, will assist the recognized and established through thousands of years of Homo sapiens sapiens evolution, autopoietic cycle. Lars Hallnäs & Johan Redström called in this respect yet in 2001 for "designs of reflection" – a design philosophy for slow technologies, which will be a kind of "the transition from, or rather complement to, the perspective on technology as ''tool'' to a perspective on information technology as being a part of a complex designed and inhabited environment" (Hallnäs & Redström, 2001, p. 211). We could apply it to the environmental practice of haiku, through the notion of the interval, relational space of "ma", which in Japanese culture is recognized as existing both in between words and the inside and outside of objects and places (Kurokawa 1998). The practice of "ma" involves the use of pauses, intervals between the stimuli, to regulate the rhythm of the experience. The practice is key factor of successful

haiku and is known in this regard through "kire", the stylistic treatment creating space between the images[5].

5.4. Translation

The biggest potential of AI poetic applications seems to be in the sphere of translation as language models are able to use various vast databases, including all recorded language systems, alphabets and codes. This is however tricky task to implement and arrange properly all these possible materials into the haiku pattern, with respect to its cultural logic. Tim McCallum described precisely problems concerning language models following standard haiku model, and defined some further areas of improvement[6]. However, we should note that his research was built in relation to the Deep Haiku model from 2022, whereas yet in 2023, the Japanese research team reported that at the current stage of advancements of language models, the audience can't tell the difference between human created haiku and AI generated haiku (Hitsuwari, Ueada, Jun, Nomura, 2023). There is also another point in the research, which seems to be very important in context of geopoetic research using deep mapping methodologies. The Authors final conclusions suggest that Human and AI collaboration in the very process of haiku creation results in more meaningful and more appealing poems than those created solely by humans (Hitsuwari, Ueada, Jun, Nomura op cit.) This seems corelate precisely to my experiences with haiku mapping on Naxos, when, sets of AI generated haikus, were recontextualized in my mind, to provide the creative framing for Alyko hotel landscape. The perspective of obtaining a tool, which could in real time integrate human input to AI haiku creation sounds very tempting in perspective of further research of that type.

5.5. Immersion

If poetry is all about feelings, the immersion appears as the most wanted factor present in AI mediated geopoetics. We can perceive it as a key element leading to the state of mindfulness, where the unity with the place can be experienced. We should however differentiate between two kinds of immersion and two concepts of mindfulness, as they lead to two opposite strategies of framing.

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[5] How Do Haiku Poets Use 'Ma' to Inspire? - illustrated Tea Cup
[6]

First, the popular notion of immersion comes from gaming culture, and HCI studies stresses the process of submerging or flooding the individual with the flux of data. This so called "digital immersion" is defined in terms of user's engagement within XR modalities, mainly VR (Biocca, 2018; Slater, 2003, 2018).

However, immersion in relation to XR technologies, can be defined also not through positioning them as default environment, but as reconsidering them as tools of application to natural environment. In this sense, immersion can be treated in accordance with posthumanist approach coined by Wolfgang Welsch, as being connected with universe, overcoming the state of detachment with physical reality: "Through cognition and language alone we would never get to objects. It's rather our primordial world-connectedness that allows for this." (Welsch, 2003). There are different ways of deepening this primordial bound. This can be obtained through meditation or somatic practices. However, the exploration based on traditional means could be also supported and deepened by AI driven XR applications, providing different angles of perception.

The twofold notion of immersion corresponds with twofold understanding of mindfulness as a certain technique of living.

First, in digital environment paradigm, mindfulness is often recognized as a kind of synergy between living subject and technological devices and applications. Thus, modern AI meditation applications such as Aura or Wysa, are based on imperative of monitoring mental and physical health conditions of its users. During their interaction with the client, they are trying to match up as much as possible, to provide content (meditations, music, inspiring poems, sentences etc.), which is filling the prompted conditions defined as "the mindfulness state". The Aura bases on machine learning, which is working analyzing choices and preferences of users, where Wysa also uses machine learning, but claims to differ by offering a cognitive – behavioral therapy with implementation of the chat-bot interface. As one can simply recognize, they, as many other similar products, are both working on obtaining some kind of ideal psycho-somatic state for their client. This creates a problematic hiatus between used norms, definitions, and criteria of mindfulness state ("flow", "relaxation", "calmness"?) and personal and cultural conditioning of users. Such applications are personalized to optimize user's live experience, but this, once again using Welsch's words, is beyond language and cognition, thus can be hardly resolved by analytical operations performed by machine learning systems. Unlike expectations of some researchers, it is not enough to investigate more and more, through experimentation blending AI and traditional forms of human expression such as poetry, to learn more about human, recognize better human emotions (Hutson & Schnellmann, 2023).

However, defining mindfulness traditionally, it was about the presence of environmental awareness. To be aware, means to be immersed, but in the proper sense, be aware of the nature of immersion and conditionings. In this respect, simply using Midjourney or Haiku Lens to obtain pictures or videos visualizing prompts or poems, can be recognized as environmental mindfulness technique. Performing such media-translating practices with the use and assistance of AI, can be understood as mapping practice, through creation variety of points of reference for spatial framing.

6. Conclusion

6.1. Inviting AI to the autopoietic circle

"Our engagement with technology expands and modifies how we create and ultimately shape our cultural evolution. The question arises as to whether all this has the potential to push the boundaries of our knowledge about human cultural and artistic heritage. In a futuristic scenario, machines could better understand human aesthetic preferences, eventually registering how we perceive and react in front of an aesthetic object with greater accuracy than is available to humans."

6.2. Lev Manovich

The futuristic scenario prophesied by Lev Manovich seems to, at least partially, never come true. Haiku robots will always stay robots—artificial beings not capable of" understanding" human emotions, as such functions are corelated with gaining consciousness. And this is not an issue of providing yet another better algorithm but something substantially different from the phenomenon called intelligence. The mystery.

AI however, will, and to some extent is, able to "read" human emotions and become a valuable partner in artistic endeavors. Inviting AI to the autopoietic circle is worth the effort, but not necessarily at the price of an utopian vision of human like robots, imitating us beyond compare. Understanding the role of technology in human world, can give us better recognition of our bonds, with this, biological and beautiful world. The world from which humans separated themselves through the development of technology but can return to it the same way through technology. And art. Poetry.

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Chapter 4 Haiku as a transmedia form and cultural memory *(Aneta Witosz)*

1. Introduction

The concept of haiku as a transmedia form represents an evolution of this traditional Japanese poetic structure, transcending its original literary confines to flourish within the vast and varied landscape of digital and multimedia environments. Originally rooted in the succinct and evocative expression of nature's fleeting moments through a highly structured format of seventeen syllables (Friedenberg, 2023), haiku has undergone a remarkable transformation, expanding its reach and influence beyond the page to embrace the dynamic realms of digital technology and multimedia platforms.

This transition into a transmedia form illuminates the adaptability and enduring appeal of haiku, underscoring its ability to resonate with contemporary audiences across different media. (Hitsuwari & Nomura, 2021). In the digital age, haiku finds new life on social media platforms, where its brief format is ideally suited to the fast-paced, concise communication styles favoured online. Platforms such as Twitter or Instagram have become fertile grounds for haiku, allowing poets to share their work instantly with a global audience and engaging with followers through concise storytelling (Rodríguez & Salvador, 2021).

Moreover, the integration of haiku into multimedia contexts ranging from visual art installations and digital exhibitions to interactive websites and virtual reality experiences further exemplifies its evolution into a transmedia form. These innovative presentations not only broaden the sensory experience of haiku but also offer new dimensions of interpretation and engagement, allowing audiences to explore the depth and nuance of haiku in immersive environments that combine text, sound, imagery, and interactivity. The move toward transmedia storytelling reflects a broader trend in the consumption and creation of content, where narratives and artistic expressions transcend single mediums to engage audiences across multiple platforms (Jansson, 2013). In this context, haiku's transition into a transmedia form is not only a testament to its versatility and universal appeal (Williams & Shipley 2019) but also an acknowledgement of the shifting landscapes of communication and art in the digital era.

By embracing digital and multimedia contexts, haiku continues to evolve, enriching its traditional essence with contemporary expressions and experiences. This evolution not only ensures the form's relevance and vitality in the modern world but also opens new avenues for creative exploration, cultural exchange, and global connectivity. As haiku traverses these

diverse media, we are invited to reconsider the boundaries of poetic expression, highlighting the potential for ancient forms to find new significance and resonance in the digital age.

2. Haiku's transmedia journey

The transmedia journey of haiku showcases its evolution from a historically rooted Japanese poetic form to a versatile medium that transcends traditional boundaries. This transition highlights not only a change in medium but also an expansion of haiku's expressive capabilities, enabling it to find new life on various modern platforms. This adaptability reflects haiku's inherent flexibility and universal themes of nature, seasons, and human emotions, which remain resonant across different cultures and media formats.

Transmedia storytelling is a narrative structure that spans multiple media platforms, enabling a comprehensive exploration of the story's universe (Slater & Rouner, 2002). Unlike traditional storytelling, which is confined to a single medium, transmedia storytelling utilizes various forms, such as literature, digital media, visual arts, and performance, to create a more immersive and engaging narrative experience (Laer et al., 2014). Each medium contributes distinct facets of the story, providing diverse perspectives and deeper layers of understanding and interaction for the audience (Busselle & Bilandzić, 2008). This approach allows for the creation of a more expansive and unique narrative that engages the audience across different platforms (Crespo & Fernández-Lansac, 2016). The concept of narrative transportation is crucial in understanding the immersive nature of transmedia storytelling. Narrative transportation refers to the extent to which individuals are absorbed in a story, leading to reduced counterarguing and increased persuasion (Green & Clark, 2012). Furthermore, the immersive nature of transmedia storytelling can lead to an emotional connection with story characters, resulting in changes in individuals' beliefs and attitudes consistent with the narrative's message (Green et al., 2004). The psychological aspects of narrative comprehension and engagement are also relevant to transmedia storytelling. Perceived realism and engagement in narratives are influenced by the circumstances under which perceptions of "unrealness" affect engagement and subsequent judgments of perceived realism (Lu et al., 2012). Additionally, successful autobiographical narratives of emotional experiences transport both the narrator and listeners into the past event, allowing critical distancing from it (Tavakoli & Foster, 2011). In the context of transmedia storytelling, the role of immersion is significant. Immersion in a narrative, as experienced in transmedia storytelling, can be achieved through the sense of

presence and embodied experience, allowing individuals to be immersed in a narrative (Riedl & Young, 2010).

The integration of haiku into digital art marks a transformative chapter in its transmedia narrative (Fernando et al., 2009). This fusion, facilitated by collaborations between artists and technologists, employs multimedia elements to craft immersive experiences that resonate with the essence of haiku. Through innovative platforms such as digital canvases, interactive installations, and online galleries, haiku is endowed with new visual and auditory dimensions, enhancing its accessibility and engagement. These endeavours not only safeguard the form's inherent brevity and depth but also broaden its appeal, inviting contemporary audiences to explore and appreciate this art form anew.

2.1. Haiku and print media

In the realm of print media, haiku has been found to be a venerable and enduring home where its traditional essence is preserved and visually enriched through the integration of illustrations, calligraphy, and thoughtful design elements (Nguyen, 2021). This tactile and visual dimension of haiku in print media serves to deepen the interpretive experience, offering readers an immersive journey into the world of haiku that transcends the textual content alone.

The pairing of haiku with visual elements such as illustrations or calligraphy is a practice steeped in tradition, drawing on Japan's rich history of combining poetry with imagery, such as in the ancient art of Haiga-haiku painting (Addiss, 2012). In these works, the visual elements do not merely serve as decorative additions but are integral to the haiku, offering a visual interpretation that complements and enhances the poem's imagery and mood. The minimalist nature of haiku, with its economy of words and emphasis on evocation, lends itself exceptionally well to this synthesis with print media, creating a dialogue between words and images that enriches the reader's experience (Addiss, 2012).

Haiku collections and anthologies are often curated not only for the poems they contain but also for how these poems are presented on the page. Publishers and editors pay careful attention to the layout, typography, and accompanying artwork to ensure that the presentation aligns with the aesthetic and emotional tone of the haiku.

Calligraphy holds a special place in the presentation of haiku in print media. The art of calligraphy, or Shodo, involves the graceful and expressive rendering of characters with brushes and ink, and its inclusion in haiku publications adds a layer of depth and authenticity (Tudorică, 2023). Calligraphic representations of haiku not only highlight the beauty of the Japanese script

but also convey the energy and emotion behind the words, as the style, stroke, and flow of the calligraphy are reflective of the spirit of the poem. This interaction between the written word and the artistry of calligraphy serves to bridge the gap between the haiku's verbal content and its visual expression.

The design of haiku publications, from cover art to paper quality, plays a crucial role in creating an aesthetic context that complements poetry (Yampbell, 2005). Publishers often choose materials and designs that reflect the simplicity and nature-centric themes of haiku, opting for paper textures and colours that evoke a natural, tactile experience. The layout of haiku on the page is also considered with care, with ample white space surrounding the poems to mirror the brevity and openness characteristic of haiku, inviting readers to pause and reflect. In print media, haiku is more than just a literary form; it is an art that engages both the mind and the senses. The thoughtful integration of calligraphy and design elements in haiku collections and anthologies enriches the reader's experience, offering a holistic aesthetic encounter with poetry.

2.2. Haiku in visual arts

The integration of haiku into the realm of visual arts represents a significant expansion of the poetic form, transcending its literary boundaries to forge a compelling synergy with painting, photography, and digital art. The juxtaposition of haiku with visual imagery creates a multidimensional experience that amplifies the emotional and aesthetic resonance of both media, offering audiences new pathways to engage with art and poetry.

The collaboration between poetry and painting is the natural convergence of two expressive forms that share a common appreciation for the beauty of simplicity and the power of suggestion. This convergence is deeply rooted in the interrelationship between poetry and painting, as evidenced by the perennial focus on critical inquiry in the early to middle seventeenth century (Loxley, 2017). The pairing of poetry and painting, also known as ekphrasis, is established in literary and art theory, and it is also a pedagogical approach in teaching poetry with painting (Jusslin & Höglund, 2021). Furthermore, the study of turning poetry into painting has been explored, indicating that painting is a marvellous language through which to gain a deeper understanding and insight into another culture and that poetry and painting are intertextually related, primarily through imagery, allowing for artistic adaptation and transformation (Sui, 2018; Lin et al., 2015). The convergence of poetry and painting is not only a historical and artistic phenomenon but also a contemporary and

interdisciplinary phenomenon. In the context of visual multimodal analysis, interactive painting poetry creation with visual multimodal analysis has been explored, highlighting the extraordinary aesthetic phenomenon in world art history (Feng et al., 2021).

Painters inspired by haiku often seek to capture the essence of a moment or scene with the same economy of expression found in the poems themselves. This can result in works that, like haiku, suggest rather than delineate, inviting viewers to fill the spaces between brushstrokes with their own interpretations and emotions. The visual representation of haiku themes in painting—whether through abstract forms, traditional landscapes, or contemporary scenes—enhances the viewer's understanding and appreciation of the haiku, creating a dialogue between words and images that is both enriching and evocative. Additionally, the technique of emptiness in haiku poetry and the white space in Japanese ink wash paintings has been studied, further emphasizing the relationship between poetry and painting in different cultural contexts (Nhu, 2022).

The ability of photography to capture fleeting moments has been widely acknowledged in the literature. The wide distribution of digital camera devices has enabled more people to freeze fleeting moments through photography (Agbo, 2019).

Photography ability aligns closely with the spirit of haiku, making it an ideal medium for exploring the themes of poetic forms. Photographers often aim to embody the poem's essence in a single image, creating visual haiku that resonate with the same depth and nuance as their written counterparts. The interplay of light, shadow, composition, and subject matter in these photographs mirrors the juxtaposition of nature and human insight found in haiku, providing a visual counterpart that deepens the poem's impact.

The emergence of digital art has opened new horizons in the integration of haiku with visual media, enabling artists to combine text, image and even interactivity in innovative ways. Digital platforms offer unparalleled flexibility in presenting and experiencing haiku, from animated interpretations of poems to interactive installations that allow viewers to engage with haiku in a dynamic environment. Digital art can bring haiku themes and images to life, offering immersive experiences that engage the senses and imagination in ways that traditional media cannot. Through these digital explorations, haiku has become a living element of contemporary art that is adaptable and resonant in the digital age.

Contemporary art exhibitions and online galleries play a key role in demonstrating fusion with the visual arts, providing spaces where these complementary forms can be experienced together. Exhibitions can feature a variety of media, from paintings and photographs to digital installations, each of which can interpret haiku in a unique way. Online

galleries extend this experience to a global audience, allowing broader access to the innovative ways in which artists and poets explore the intersection of text and visual arts (Maaruf et al., 2020).

2.3. Haiku on social media

The digital revolution has significantly impacted the art of haiku, providing new platforms and opportunities for its creation, sharing, and appreciation. Social media platforms, such as Twitter and Instagram, have become ideal spaces for the evolution of haiku, offering unique features that enhance the experience of both creators and audiences. Twitter's character limit mirrors the structural discipline of haiku, challenging poets to convey depth within a limited space (Rodríguez & Salvador, 2021). This constraint has sparked creativity and facilitated real-time engagement, enabling immediate feedback and global connections (Rodríguez & Salvador, 2021). On the other hand, Instagram's focus on visual content has provided a complementary canvas for haiku, allowing poets to pair their verses with imagery, creating a multisensory experience that invites followers to engage with haiku in a more immersive way. The proliferation of haiku on social media has democratized the art form, breaking down barriers to access and participation, leading to a diversification of voices within the haiku community and the introduction of new perspectives. Furthermore, social media has played a crucial role in introducing haiku to younger generations, ensuring its relevance and sustainability in the digital age (Rodríguez & Salvador, 2021). The digital revolution has fostered a contemporary community of poetry enthusiasts, serving not only as a venue for sharing and discovery but also as a space for dialogue and collaboration (Horst et al., 2022). Online workshops, virtual haiku walks, and digital poetry readings have brought practitioners together, creating a sense of community that transcends physical boundaries (Rodríguez & Salvador, 2021).

The digital revolution has transformed the landscape of literary expression, offering new platforms and possibilities for the ancient art of haiku. Social media platforms have significantly influenced how haiku are created, shared, and appreciated, marking a new chapter in their long history and ensuring their relevance and sustainability in the digital age.

2.4. Interactive Media Platforms

The exploration of haiku within interactive media platforms represents a ground-breaking fusion of traditional poetic elegance with the cutting-edge capabilities of modern technology. This innovative intersection has not only redefined the boundaries of haiku's expression but also significantly expanded its reach and appeal, inviting users to engage with this ancient form in unprecedented ways. Through video games, mobile apps, and virtual reality (VR) experiences, haiku becomes an interactive art form, offering dynamic new modes of creation, interpretation, and immersion.

In the realm of video games, haiku has been found to be a novel platform for integration and exploration. Developers have ingeniously woven haiku into gameplay, using it as a narrative tool that enriches the gaming experience with poetic depth and cultural resonance (Sezen, 2015). Players may encounter haiku as puzzles to solve, rewards for achievements, or elements that unlock new chapters and insights into the game's story. This not only serves to educate players about haiku but also integrates poetry seamlessly into the game's narrative, making its discovery and comprehension a part of the immersive experience. Games such as "Ghost of Tsushima" exemplify this approach, where players compose haiku to connect with the game's setting and themes, thereby blending traditional poetry with the interactive storytelling of video games.

VR experiences perhaps offer the most immersive avenue for engaging with haiku. By transporting users to the scenes depicted in the poems, VR can be a sensory immersion that deepens the understanding and appreciation of haiku. Imagine standing on a VR-rendered ancient bridge as autumn leaves fall gently around you, a haiku about the impermanence of beauty echoing in the air. This level of immersion allows users to experience the emotional and aesthetic nuances of haiku in a manner that transcends traditional reading, allowing poetry to resonate on a profoundly personal level.

As developers and creators continue to experiment with ways to incorporate haiku into interactive experiences, the potential for creative expression and audience engagement seems boundless. This ongoing fusion not only serves to modernize haiku's presentation but also ensures its relevance and accessibility to a global audience, inviting more people to discover and cherish its timeless beauty. In the context of immersive experiences, it is essential to consider the limitations and potential reach of VR technology.

While VR offers a unique on-screen experience, it also has limitations in terms of audience reach, long-term preservation, and access (Aguiar, 2023). However, the use of VR can

also address challenges related to face-to-face interactions, offering virtual spaces for community interaction and the negotiation of meanings and perceptions of reality (Kermanchi, 2022; Kermanchi, 2022). Furthermore, the abstraction and virtualization offered by VR technology can enhance existing products and services, contributing to the gamification of intelligent daily environments (Sakamoto & Nakajima, 2014). This highlights the potential of VR to not only deepen the understanding and appreciation of haiku but also transform various aspects of human experiences. The integration of haiku poetry into VR experiences has the potential to revolutionize the way individuals engage with and appreciate this art form. By leveraging the immersive nature of VR, haiku can be experienced in a manner that transcends traditional reading, offering a deep personal and emotional connection to poetry.

2.5. Haiku in Performance Arts

The integration of haiku into the performance arts represents the expansion of its expressive potential, moving beyond the written word to inhabit the dynamic spaces of theatre, music, and dance. In these mediums, haiku transcends its traditional form to become a powerful narrative device or thematic foundation, inspiring performances that are as evocative and profound as the poems themselves.

In theater, haiku was utilized as a narrative and thematic anchor, enabling playwrights and directors to distil complex emotions and scenarios into their essence, offering audiences a concentrated form of storytelling that resonates deeply. Haiku-themed theater productions often incorporate poems directly into the dialogue or use them as conceptual springboards, creating layers of meaning that unfold through the actors' performances. Similarly, in dance, haiku's imagery and emotional landscape are conveyed through the movement of bodies in space, creating an immersive experience that captures the fleeting beauty and poignant simplicity characteristic of haiku. Furthermore, research has explored the use of haiku in education, emphasizing its role in audience and performance and highlighting its potential impact on the learning process (Prendergast, 2004).

2.6. Haiku in Film and Animation

The incorporation of haiku into film and animation represents a nuanced and impactful method of storytelling that bridges the gap between the poetic and the visual (Nelson, 2007). Whether used at the outset of a film to create an atmosphere or woven into the fabric of an

animation to reflect characters' emotions, haiku serves as a potent narrative device that enriches the viewer's experience.

In cinema, the use of haiku can be a subtle yet powerful tool for filmmakers wishing to convey complex themes and emotions in a concise and impactful manner. By opening a film with a haiku, directors can immediately establish a certain mood or theme, inviting the audience into the story's emotional landscape even before the plot unfolds. This practice not only pays homage to the traditional roots of haiku but also demonstrates the versatility of this poetic form in a modern context (Nelson, 2007). Beyond opening scenes, haiku may also be used throughout a film to underscore pivotal moments, serving as poetic reflections that highlight the narrative's depth and nuances. Such integration of haiku into film underscores the ability of these brief verses to evoke a wide range of responses, from contemplation to profound emotional engagement.

The world of animation, particularly in Japanese anime, offers a rich canvas for the integration of haiku into visual storytelling. The flexibility of animation as a medium allows for a seamless blend of haiku with visual and narrative elements, often involving the use of poems to convey the inner thoughts and emotions of characters or to capture the essence of the story's setting. In anime, haiku can function as a narrative bridge, connecting scenes or characters through shared themes or emotional states, thus enhancing storytelling through layers of meaning that resonate with audiences (Nelson, 2007). The use of haiku in animation not only enriches the narrative but also pays tribute to the cultural significance of this poetic form, grounding even the most fantastical stories in the sense of real emotional depth and cultural authenticity (Nelson, 2007).

For viewers, encounters with haiku within these visual media offer a moment of poetic reflection, a brief pause in the narrative flow that invites deeper contemplation and emotional connection. This blending of visual and poetic storytelling enriches the viewer's experience, providing multifaceted engagement with the work that stimulates both the intellect and the senses. Moreover, for those unfamiliar with haiku, its presence in film and animation serves as an accessible introduction to the form, potentially inspiring further exploration and appreciation of poetry.

2.7. Haiku in public art and urban spaces

The incorporation of haiku into public art and urban spaces has been found to be a creative and thoughtful integration of poetry into everyday life (Suzuki, 1962). By inscribing

haiku verses in public areas such as parks, transit stations, and walkways, cities and communities can transform ordinary spaces into open-air galleries that offer moments of contemplation and artistic appreciation for passers-by (Rowland, 2013). This fusion of poetry with public space not only beautifies the urban environment but also deepens the public's engagement with cultural and artistic heritage (Rowland, 2013). Parks and green spaces have been identified as ideal venues for haiku installations where the natural surroundings resonate with the themes of nature and seasonality often found in haiku poetry (Suzuki, 1962). Benches, pathways, and gardenstones can be adorned with haiku, inviting visitors to pause and reflect upon the verses amidst the tranquillity of nature. These installations create a dialogue between the poem and its environment, enhancing the visitor's experience of the space and encouraging a deeper connection with the natural world (Rowland, 2013). The hustle and bustle of transit stations and urban walkways offer a contrasting backdrop for haiku installations, providing moments of quiet reflection in the midst of urban chaos. Inscribing haiku in these high-traffic areas serves as a gentle reminder of the beauty and depth to be found in everyday life, encouraging commuters and city dwellers to pause, even if just for a moment, to engage with the poetry. This unexpected encounter with art and poetry can transform a routine commute into an experience of discovery and contemplation (Rowland, 2013). Incorporating haiku into urban design goes beyond mere aesthetic enhancement; it reflects a commitment to creating spaces that nurture the public's mental and emotional well-being (Suzuki, 1962). By integrating poetry into the urban landscape, designers and planners acknowledge the importance of cultural enrichment and the need for spaces that offer respite and inspiration during urban living (Suzuki, 1962). Haiku, with its brevity and ability to evoke powerful imagery and emotions, is particularly suited to this purpose, offering quick but profound engagement with art that fits seamlessly into the pace of city life (Suzuki, 1962). Public art projects that feature haiku often involve community participation, from the selection of poems to the creation of installations (Rowland, 2013). This process fosters a sense of ownership and pride among community members, who see their local environments enriched by these poetic interventions (Rowland, 2013). Furthermore, community-engaged haiku projects can serve as educational tools, introducing people to the art of haiku and encouraging them to explore poetry writing and appreciation (Rowland, 2013).

3. Haiku's role in preserving and evoking cultural memory

Cultural memory is a fundamental aspect of society encompassing the collective knowledge, traditions, and values transmitted across generations (Adams, 2019).

Haiku, a Japanese minimal poem form, plays a crucial role in encapsulating moments of natural beauty and human emotion, thereby preserving and transmitting aspects of cultural heritage and collective memory (Tosa et al., 2008). Through its succinct and evocative form, haiku offers a unique lens for the cultural and natural landscapes it describes, fostering a deeper connection with and understanding of past experiences and wisdom (Matsumoto, 2023).

One example of haiku conveying traditional values, traditions, and knowledge can be found in haiku, which reflects seasonal changes, a common theme due to the importance of seasons in Japanese culture. For instance, a haiku that describes the fleeting beauty of cherry blossoms in spring not only captures a moment in nature but also conveys the Japanese tradition of "Hanami", the centuries-old practice of enjoying the transient beauty of flowers (Ramlan, 2021). This tradition underscores the cultural values of mindfulness, the impermanence of life, and the deep appreciation for seasonal changes, teaching these values through the simple yet profound imagery of haiku.

By capturing fleeting moments in nature, haiku encourages reflection on our place within the natural world, thus contributing to environmental consciousness and reinforcing the importance of nature in our collective cultural memory. It emphasizes the idea that human endeavours and the natural world are deeply intertwined, with nature often serving as a mirror or metaphor for human emotions and experiences.

Haiku often captures historical events and social changes, serving as poignant snapshots of cultural moments. For example, haiku were written about natural disasters, reflecting on the impermanence of life and the strength of communities in the face of adversity. These poetic forms document the emotional and physical landscape of their times, offering future generations insight into the challenges and triumphs of the past. Owing to its brevity and depth, haiku crystallizes moments of collective experience, preserving them in cultural memory. One notable example is the haikus that emerged following the Great East Japan Earthquake and tsunami in 2011 (Madoka, 2013). These haiku served not only as expressions of immediate grief and loss but also as reflections on the broader societal and environmental impacts of the disaster. Through these succinct poetic forms, the emotional, physical, and societal upheavals experienced by the Japanese people during and after the catastrophe were encapsulated,

providing future generations with a lens through which to understand the profound effects of natural disasters on human societies.

Haiku, a traditional Japanese poetic form consisting of three verses, has transcended national boundaries and cultural contexts, becoming a global medium for cultural expression and exchange. The intergenerational transmission of haiku plays a crucial role in preserving cultural identity, serving as a bridge that connects the past with the present and embodies shared history, values, and aesthetics. This ongoing exchange ensures that the essence of haiku and its cultural significance remain vibrant and relevant, enriching collective cultural memory and reinforcing a sense of continuity within communities (Gaudioso & Soares, 2022).

The influence of digital platforms on the archiving and preservation of haiku marks a significant milestone in the stewardship of cultural memory in our increasingly digitalized world. These platforms, ranging from dedicated poetry archives to social media networks, play a pivotal role in ensuring the global accessibility of haiku, thereby extending its reach far beyond its traditional Japanese roots (Reuver et al., 2018). This universal access causes constant evolution, weaving contemporary narratives and perspectives into its concise and evocative form.

Digital archiving of haiku transcends mere preservation; it facilitates a dynamic interaction between the past and the present (Zavalina & Chelliah, 2022). Through online repositories, educational websites, and digital libraries, both classic and modern haiku are curated and made available to a worldwide audience. This process democratizes access to haiku, enabling people from all walks of life to explore its depths, contribute their voices, and engage in cross-cultural dialogues. Such platforms ensure that the essence of haiku—capturing the fleeting moments of nature and human emotion in a few poignant lines—remains alive and resonant across time and space.

Moreover, digital platforms contribute to the preservation of haiku by supporting linguistic diversity and cultural exchange. Translations of traditional haiku into multiple languages are widely disseminated, inviting global interpretations and appreciation. This not only enriches the understanding of haiku's historical context but also encourages the integration of local cultural elements into its creation, fostering a truly international haiku community.

The role of digital platforms in archiving haiku also extends to the realm of education and scholarly research. Academic institutions, literary societies, and cultural organizations utilize digital archives to host workshops, seminars, and conferences that explore haiku's aesthetic, philosophical, and environmental dimensions (Windhager et al., 2019). This scholarly

engagement deepens the understanding of haiku's significance and contribution to the world literature, promoting further study and analysis that enriches global literary heritage.

In preserving haiku within the digital domain, we are not merely safeguarding a poetic form; we are maintaining a vital link to cultural memory and artistic expression that spans centuries. Digital archiving ensures that haiku remains a living tradition, adaptable and reflective of the changing world, while still rooted in its rich cultural heritage. As digital technology continues to evolve, so too will the methods by which we archive, preserve, and celebrate haiku, ensuring its endurance and vibrancy for generations to come. This interplay between tradition and innovation underscores the profound impact of digital platforms on cultural preservation, heralding a new era in which the ancient art of haiku flourishes amidst the digital age's expansive landscape.

4. Future Directions

The horizon of haiku's future is being reshaped by the rapid pace of technological advancements, promising a transformative impact on the creation, dissemination, and experiential dimensions of this traditional poetic form. Innovations in artificial intelligence (AI) and virtual reality (VR) are at the forefront of this revolution, poised to introduce more interactive and immersive modalities for engaging with haiku. These technologies herald a future where individuals may not only read haiku but also live within its essence, exploring virtual environments that embody the poems' imagery and emotions.

The evolving capabilities of AI in natural language processing and machine learning present intriguing prospects for text generation and analysis (Yi et al., 2017). Such advancements could automate the creation of haiku, offering tools that mimic the nuanced, emotive brevity characteristic of the form. This could serve both as a means to introduce novices to the art of haiku and as a creative aide for seasoned poets seeking inspiration. Furthermore, AI-driven analysis of haiku could uncover new patterns and insights, deepening our understanding of its stylistic and thematic elements across different cultures and periods.

Virtual reality technology, with its capacity to create fully immersive digital environments, offers a unique avenue for experiencing haiku. Imagine donning a VR headset and being transported to a serene Japanese garden at dawn, the scene of a haiku comes to life, where every sensory detail, from the chirping of cicadas to the gentle rustle of bamboo leaves, is rendered with exquisite precision. This level of immersion could revolutionize the way haiku

is experienced, making it a multisensory journey that transcends the limitations of text on a page.

Moreover, the integration of AI and VR into Haiku's domain not only extends to consumption and creation but also opens up innovative avenues for education and preservation. Educators could leverage these technologies to provide students with immersive learning experiences that bring history and cultural significance to life. Similarly, museums and cultural institutions might employ VR exhibitions to showcase haiku's rich tradition, engaging visitors in a more profound and memorable way.

The future of haiku, as shaped by forthcoming technological advancements, is brimming with potential. AI and VR offer exciting possibilities for making haiku more interactive, immersive, and accessible, inviting us to reimagine the boundaries of this ancient poetic form. As these technologies continue to evolve, so too will the ways in which we create, share, and experience haiku, promising a future where the essence of this cherished art form is experienced in entirely new dimensions, enriching the global cultural landscape.

However, preserving the cultural and historical essence of haiku amidst its adaptation and evolution presents challenges, particularly in maintaining its traditional form and depth while embracing modern expressions and platforms. Balancing the integrity of haiku's succinct nature and thematic focus with contemporary influences and new media formats requires careful consideration to ensure that its core values and aesthetics are not diluted. The adaptability and succinct nature of haiku may cause it to become a prominent form of expression on new platforms, foster cross-cultural connections, and serve as a concise medium for capturing the human experience, especially in the context of ongoing innovations in media and communication (Gaudioso & Soares, 2022).

5. Conclusions

Haiku has demonstrated an extraordinary ability to adapt across changing media landscapes while retaining its essence and depth. Its evolution from a traditional literary form to a transmedia phenomenon underscores its universal appeal and flexibility. This development illustrates how ancient artistic forms can find renewed significance and resonance in the digital age.

The digitization of haiku on social media platforms and other digital media democratizes access to this art form, enabling global exchange and cocreation. The virtual haiku community

flourished, transcending geographical and cultural boundaries and demonstrating the global significance of haiku as a form of expression.

Haiku plays a pivotal role in preserving and transmitting cultural memory, acting as a vessel for shared knowledge, traditions, and values. Through its conciseness and evocativeness, haiku acts as a bridge between the past and present, facilitating the continuation and rediscovery of cultural identity.

Technological innovations such as virtual reality and artificial intelligence open new possibilities for haiku, increasing interactivity and immersion. These experimental approaches enrich the haiku experience, allowing for deeper engagement and personal encounters with poetry.

The digital transformation of haiku brings about challenges related to authenticity and interpretation. Preserving the essence of haiku while exploring new forms and mediums requires a balance between innovation and tradition. However, bringing haiku into the digital realm also creates opportunities for education, creativity, and cultural heritage preservation.

Haiku faces a promising future in which its role as a medium of expression and element of cultural memory will continue to evolve. Its adaptability and resonance across various contexts and platforms suggest that haiku will remain a relevant and dynamic artistic form in global cultural dialogue.

Haiku, as a transmedia form and cultural memory, emphasizes not only the durability and adaptability of haiku in the face of technological and cultural shifts but also its enduring value as a means of artistic expression that transcends temporal and spatial boundaries. The evolution of haiku from a traditional poetic form to a comprehensive transmedia phenomenon attests to its continual ability to engage, inspire, and connect people worldwide.

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Chapter 5 Dialogue between poetry, AI technology and socio-cultural studies *(Justyna Gorzkowicz)*

1. Introduction

Contemporary academic research is increasingly recognising poetic inquiry as an important research methodology because of its unique ability to capture the essence of human experience. Poetry's blend of artistic and research value has been appreciated by scholars such as Lynn Butler-Kisber and Laura Apol, who emphasise poetry's potential to explore human emotions and experiences that are inaccessible to other analytical methods (Butler-Kisber, 2012; Apol, 2010). The research potential of art has also been recognised by Gary Knowles and Ardra Cole. In their view, art, like no other medium, can be central to the development of qualitative research methodologies, offering insights into the human condition by analysing the creative expression of individuals (Knowles & Cole, 2008).

Poetry, especially haiku, combined with artificial intelligence has become a tool in various research practices of the CAPHE team, highlighting the special relationship between art and human experience. The interdisciplinary perspective adopted by the researchers can be seen as a reflection of Zygmunt Bauman's 'liquid modernity', in which the boundaries between different spheres of social and cultural life are blurred. (Bauman, 2000).

The shift of the function of poetry from the field of art to social life is a process that progresses with the development of civilisation and can indeed be understood as an illustration of Bauman's theories. However, Aristotle emphasised the fundamental importance of poetry in the social and spiritual development of the individual, highlighting catharsis as the unique element that connects poetic work with its audience. This concept, central to the Stagirian theory of tragedy, illustrates the emotional release and moral enlightenment that art can evoke in the viewer (Aristotele, 1996).

Catharsis, as a process of purifying negative emotions such as fear or pity through their safe experience within a literary or theatrical work, thus facilitates a deeper understanding of human nature. This phenomenon has been observed by researchers who stress the importance of poetic practices in the struggle for health, human psychological well-being and spiritual growth. As Rich Furman points out, writing poetry in many cases becomes a powerful form of self-therapy, offering an engaging way to understand and integrate one's inner world (Furman,

2006). In this sense, artistic practices integrated into social life can lead to a cathartic experience; writing poetry can stimulate emotional purification.

The novelty of the approach put forward here is the introduction of artificial intelligence technology into the dialogue between poetry and the social sciences. AI, with its ability to process and analyse data, can support the interpretation of poetic data, allowing a deeper understanding of the emotional and cultural patterns encoded in texts. We propose to understand the dialogue between poetry and AI as a metaphorical space where the boundaries between the humanities and sciences, as well as between experience and analysis, are blurred. In this interdisciplinary space, poetry can function not only as an art form but also as a research tool for understanding and interpreting modern reality because of its subtle nuances. Furthermore, in the context of AI-generated poetry, we can consider how it might impact the process of cleansing individuals with negative emotions.

Expanding horizons and sparking controversy, this marriage pushes the boundaries of traditional research methods. The inclusion of AI in the creative process sheds new light on questions of authenticity, authorship and human creativity in the digital age. In the case of generative art, a number of additional questions arise, including whether a work devoid of human touch can effectively evoke cathartic experiences.

A major challenge in this regard seems to be understanding how AI technology can support the creative process, not by replacing it but rather by complementing it. What new forms of poetic expression might emerge from this interaction? Above all, how might these affect our perception of sociocultural phenomena? If we accept that poetry is the medium through which the image of the world we live in shines through, it is also interesting to ask how AI technology can contribute to the development of this particular form of knowledge.

With these questions in the background, the CAPHE team aims to explore the possibilities and limitations of using haiku — a form of poetry traditionally focused on deep reflection on nature and human emotions — and artificial intelligence as research tools. Furthermore, we intend to consider the interdisciplinary links between art, science and technology. In our reflections, we pay particular attention to cross-disciplinary dialogue, seeing it as an opportunity for fresh interpretive possibilities and for rethinking the connection between humanities and technology in their current form.

2. Between poetry and AI

Following Lev Manovich's perspective, integrating poetry with AI could be considered a new link in the chain of avant-garde art, passed through the stages of "new painting," "new sculpture," "new architecture," and "new photography." One of the first experimenters with computer-generated poetry was Theo Lutz, who in 1959 used the Zuse Z22 computer to create poems based on the grammatical rules and text of Franz Kafka's The Castle (Lutz, 1959). These early experiments with generative poetry not only opened up new perspectives on poetic expression but also initiated a discussion about the role of technology in art. Similar explorations continued in the following decades with the introduction of programmes such as 'Racter', 'Travesty' and 'Brekdown', which also experimented with text generation (Emerson, 2008).

Both scholars and practitioners are keen to explore the dialogue between poetry and technology. For example, Jim Andrews, a Canadian artist and programmer prominent in the field of electronic poetry, has blended text, sound, image and interaction since the 1990s, exploring the possibilities of new media and digital technologies in the creation of poetry. (Andrews, 2017).

According to Loss Pequeño Glazier, an artist, theorist and pioneer in the field of digital poetry, digital advances have significantly revolutionised poetics, allowing words to transcend traditional boundaries and foster the emergence of cyberpoetry. Already distinct from traditional poetic forms, this genre uses digital tools to create works that resonate with contemporary audiences. Cyber-poems excel at illustrating the shift from conventional forms to more dynamic, interactive experiences (Glazier, 2002).

Similarly, Selmer Bringsjord and David Ferrucci examined the relationship between technology and the literature through groundbreaking research on the BRUTUS AI system, which focused on narrative generation. They explored the ability of machines to create coherent and compelling stories, with the aim of mimicking human storytelling. Their work investigated the potential and limitations of AI in the context of literary creativity, suggesting that machines can not only imitate certain aspects of creative writing but also inspire human authors to explore new forms of expression. (Bringsjord, Ferrucci, 2000).

The symbiotic relationship between technology and literature is also explored by Katherine Hayles, who imagines new horizons for both fields. Her work shows how digital environments are changing the way we create and interpret literature, offering new ways of reading and writing. Hayles's analyses provoked reflection on the interplay between media and

suggested that digital technologies can significantly enrich poetic expression and artistic inquiry (Hayles, 2002, 2008). Likewise, some scholars advocate the increased use of computational technologies in literary studies, where algorithmic analysis can reveal hidden patterns in poetry and offer new perspectives on textual interpretation. (Ramsay, 2011). This point of view highlights the importance of AI in the study of poetry, as it refreshes our understanding of the links between form, content and meaning.

Other areas of science also offer unique perspectives on the impact of technology on human emotion and expression, which is at the heart of the poetic task. John Troyer's work, "Technologies of the Human Corpse", could metaphorically represent how AI-driven poetry might lead audiences to deep introspection and cathartic experience, stimulating reflections on the complexity of human existence. This analogy suggests that just as technology influences our interaction with the concept of mortality; it also has the potential to deepen our engagement with poetry and its exploration of human experience (Troyer, 2020).

The intersection of technology and art reveals patterns and relationships that traditional analyses may miss. While this fusion can enrich our understanding of themes and emotions in modern creativity, it also introduces complexities. Critical studies highlight worrying aspects of changes in humanities research, pointing to the transformative and controversial aspects of digital methods in poetry analysis. Moderate critics argue that these methods should complement, rather than replace, existing methodologies, emphasising the need for thoughtful navigation of the ethical and epistemological implications of technology-driven research practices (Fiormonte, Numerico, Tomasi, 2015). This collaboration may blur the boundaries between human and automated creation, challenging the notion of 'authentic' artistic expression and prompting reflection on the role of AI in shaping cultural narratives and social values.

However, the dialogue between poetry and AI appears to be fruitful ground, offering an experimental field for the development of art, modern sociocultural phenomena and their interpretation. The CAPH team's exploration of haiku in interdisciplinary research exemplifies the potential of AI in creating transcultural links. This partnership not only enlivens the artistic landscape but also encourages critical reflection on the nature of creativity, expression and the human experience of culture in the digital age.

3. Between poetry and AI images

Combining artificial intelligence with poetry and visual art opens up unprecedented possibilities, including a reinterpretation of the Aristotelian concept of catharsis. This fusion not only renews the debate about the emotional and purifying functions of art but also demonstrates how it can resonate in modern cultural contexts. Catharsis may take on a new shape, allowing audiences to experience profound emotions through interactions with generated works that combine poetry and images in unprecedented ways.

Poetry and images generated by AI, creating a unique synergy, can lead to emotional healing and the exploration of new ways of visualising the world of human emotions, if properly used and defined. This, in turn, could have profound implications for poetic inquiry integrated into social sciences, affecting the credibility of research based on the analysis of generated works. The knowledge that new technologies contribute to the creation of a piece of art changes our perception of the creative process itself (Manovich, 2001; Boden, 2004). The creativity generated by AI is still perceived as a technological experiment rather than a work that is steeped in deep thought. This specific perception influences the expectations of audiences who look for 'human' qualities in art, such as narrative coherence capable of evoking emotion and reflection. There is a concern that works created by algorithms may lead to a 'dehumanisation' of art and culture, creating a sense of alienation from similar work. The complexity and abstraction of some AI outputs can leave audiences disoriented and unable to find their way to personal interpretation. Art often values spontaneity and a degree of imperfection as elements that add depth to the message (Gunkel, 2012; Rieser, 2013; Carter, 2023). Artificial works that are too perfect or have unnatural 'flaws' (e.g., an excessive number of fingers on algorithmically recreated human figures) may fail to meet the expectation of inducing a cathartic experience. Recent research has shed light on the potential but also the risks of content-generating technologies as an objective tool for examining cultural narratives. This highlights the need for a critical approach to the analysis of generated images, drawing attention to how they may unconsciously reflect and reinforce multicultural biases and stereotypes. Through an empirical analysis of images generated in response to textual verses, this research offers new insights into the complexity of this content. They are recognised by artificial intelligence through sophisticated algorithms and arranged by machine learning into a seemingly infinite number of patterns that reflect the dominant content in a given database (rather than culture per se). At the same time, the possibilities of using AI to create poetry based on images, and vice versa, are pointed out, opening up the field for the exploration of new relationships between textual and

visual forms of artistic expression. (Liu, Fu, Kato & Yoshikawa, 2018, Carter, 2023, Song, Zhu 2024).

In an era of technological dominance, it seems crucial for artists and researchers to collaborate with AI. Such a dialogue implies treating technology as an assistant supporting the creative process, artistic perception and research rather than as the sole 'author'. Equally important is the philosophical reflection arising from this combination, which transcends technological boundaries, reaching the essence of modern artistic expression and the social role of art.

In the digital world, Aristotle's concept of catharsis acquires a new dimension. In this vision, AI becomes a guide and an artistic medium, enabling navigation through the complex labyrinths of human emotions via visual and textual narratives (Mirowski, Mathewson, Branch, 2021). This cross-disciplinary exchange breaks down traditional boundaries, enriching the expression of artistic expression and creating new forms of storytelling. Such collaboration opens up dynamic, new spaces for the coexistence of the arts, which also fosters the creation of new modes of interpretation. It heralds an era in which our emotional and creative landscapes are undergoing a profound metamorphosis.

Projects such as XiaoIce (Cheng et al., 2018) and iPoemRec (Zhang et al., 2019) are examples of bringing the idea of such a dialogue to life. . These are pioneering attempts to use modern technologies to create poetry inspired by images, demonstrating AI's impressive ability to analyse visual stimuli and transform them into artistic works. Their application in this context not only highlights the link between the visual and poetic dimensions but also pushes the boundaries of creative expression. By generating millions of poems, XiaoIce demonstrates the key role of AI in the development of digital literature. On the other hand, iPoemRec is a unique approach for interpreting visual motifs and transforming them into poetry. It offers a poetry recommendation system. The analysis of image data suggests that poems can enrich an image through literary expression.

Interestingly, the project focuses on the integration of natural language processing and computer vision for the reproduction of classical Chinese poems. Researchers have presented a model that draws both visual and semantic inspiration from images to create poetry, surpassing conventional text generation methods. The analysis of the generated materials included both human evaluation and quantitative analysis. Through this holistic approach, researchers have confirmed the ability of their model to faithfully reproduce the essence of images in the form of almost unrecognizable examples of classical Chinese poetry (Xu, Jiang, Qin, Wang, Du, 2018). However, this raises a range of controversies. This raises questions about the impact of

artificially reconstructed literary works on the interpretation and understanding of classical patterns. What will remain of authentic Chinese poetry for future generations? What could be the long-term impact of using AI to interpret and present classical literature on the preservation of cultural heritage?

We can see, therefore, that this kind of dialogue provokes more than a few critical reflections. It forces a re-evaluation of traditional notions of authorship and creativity and raises questions about the role of AI in the arts. Critical reflections should also be made on issues related to copyright, the moral rights of creators, and the possibility of replacing human beings with machines (Wu, Song, Sakai, Cheng, Xie & Lin, 2019). The debate around the growing use of AI in the arts has sparked discussion about the need for clear guidelines that respect human creativity while addressing issues of authenticity (World Economic Forum, 2022). Mark Fagiano of Washington State University emphasises the importance of a pragmatic approach to these complex issues, allowing analysis not only of the consequences for AI art but also of broader social and technological challenges (Fagiano 2022).

The moral rights of creators, particularly in the context of AI adaptations or significant modifications of existing works, raise complex legal and ethical issues. Projects such as Oxia Palus' AI reconstructions of lost artworks highlight the tension between innovation and the protection of creators' rights. In the context of varying moral rights protections in different jurisdictions, AI poses challenges to these conventions (Clark, 2023).

To properly address these contentious issues, a multidisciplinary approach that combines knowledge from the fields of art, law, ethics and technology is needed. Developing such a dialogue appears to be a crucial element in creating new research tools and frameworks for collaboration that take into account ethical and socially responsible advances in technology and artistic expression.

4. **Between poetry and textual tools**

In the era of posthumanism, the dialogue between artificial intelligence and poetry signals a breakthrough in the field of literature, both in terms of its creation and its critical analysis. We are witnessing a phenomenon comparable to the birth of cyberpoetry, but with one significant difference. Modern textual tools operate without significant limitations. With access to vast databases beyond the capacity of a single mind, their operations are characterised by greater complexity, and the speed of data processing is inconceivable to the average person. Such technological advances are leading to revolutionary changes in the literature (Floridi &

Chiriatti, 2020). By analysing growing databases, Michel Foucault emphasised that similar knowledge is power, which has particular significance in the context of technologies capable of shaping social and cultural narratives (Foucault, 1972, 1980). Although AI enables the discovery of new patterns and the enrichment of the cultural landscape, doubts are being raised about the originality and authenticity of the works produced by modern tools. The vision of the pervasiveness of algorithms, which can threaten creative autonomy, forces creators and audiences to strive to maintain artistic freedom and a critical attitude toward technology (Pasquinelli, 2015).

By drawing on the achievements of digital humanities and aesthetic theory, we open the door to a deeper understanding of the implications that the combination of poetry and textual AI tools may have for the future of literature. The influence of technology on the shaping of literary identity has been explored by, among others, Nancy Hayles, who points to the changing dynamics in the perception of literary works (Hayles, 1999). There is also research that provides a framework for analysing the interaction between digital tools and humanities, laying the foundation for exploring the impact of AI on the aesthetics and structure of poetry (Manovich, 2001; Boden, 2004; Gold, 2012). The concept of posthumanism, explored by Rosi Braidotti, shows how textual tools can revolutionise our understanding of creativity in the field of poetry (Braidotti, 2013). New technologies enable detailed analysis of texts, deepening our understanding of their complexity (Hoover and colleagues, 2014). AI tools not only facilitate the creative process but also open up new horizons for experimentation with forms and styles, as well as enabling poetic dialogues between humans and machines.

Such technological progress offers poets unparalleled opportunities for creative exploration, providing tools, metaphors and images previously beyond the reach of the human imagination (Floridi & Chiriatti, 2020). Moreover, the application of AI is expanding in the field of cultural works analysis, where computational methods are becoming a valuable tool for supporting interdisciplinary literary studies.

Artificial intelligence algorithms are demonstrating a powerful ability to integrate literature with visual arts, creating complex narratives enriched with text and images. An example of this is the project developed by Shujun Khan and his team. PhotoStylists have the ability to transform text into corresponding images, providing readers with an interactive aesthetic and emotional experience (e.g., by modifying colours, contrast, and saturation according to the viewer's instructions) (Khan et al., 2021).

This ability of algorithms to analyse and visualise literary themes, motifs and emotions opens up new, multidimensional aesthetic spaces for artists and audiences. The element of

interactivity in poetic projects supported by new technologies enables the creation of 'living' artworks that evolve over time. By engaging with such works, audiences not only interpret them but also become cocreators, introducing an element of unpredictability and uniqueness. In this way, a piece of art can change with each interaction, reflecting a complex 'web of meanings' and experiences. Projects such as 'AIVA' or 'Shelley AI' from the MIT Media Lab, which involve users in content creation, force us to question whether AI can be considered a true creator and whether its products can resonate with human emotions on a par with traditional poetry. (Shelley AI, 2017). Can works created by algorithms evoke emotions comparable to those that Aristotle attributed to classical poetry and drama?

Technological developments challenge our understanding of the impact of AI on the literature, requiring interdisciplinary research combining literary studies, computer science, psychology and philosophy. Such an approach can help discover how AI-generated poetry affects human emotions and whether it can perform a purifying function similar to traditional works. Considering the potential and technological challenges, it becomes crucial to ask questions about AI's ability to transcend the limits of human creativity, its impact on copyright and intellectual property, and its role in transforming the way we experience literature in the digital age.

5. The impact of AI on poetry and poetic inquiry – discussion

Revolutionary achievements in the field of artificial intelligence have evoked mixed feelings. Their combination with poetry and science represents a transformative shift that both scholars and practitioners are paying attention to. Thinking about the dialogue between poetry, AI technology and sociocultural studies is, in fact, a new phenomenon. However, individual foci of dialogue—such as poetic inquiry, generated poetry, and the wide application of AI in social life—have been the subject of critique before.

This criticism has often concerned the methodological limitations of poetic inquiry itself compared to more traditional quantitative methods. It has pointed to the problematic nature of poetry as a tool capable of accurately representing human experience, emphasising a critical approach to the use of metaphor in generalisation and a romantic tendency to regard poetry as a research method (Schwalbe, 1995; Boden, 2004; Silverman, 2007).

The far-reaching consequences of the use of algorithms in science and art, especially in the field of poetry, can raise questions about the management of these technologies. Ambiguities regarding transparency and the lack of adequate regulation, including the issue of recourse in

cases of error or potentially discriminatory actions, can lead to a blurring of the unique character and emotional depth of works. Furthermore, such an approach can affect the research process and limit it to a one-dimensional perspective (O'Neil, C. 2016).

It has also been noted that fascination with generative art and its acceptance in the academic world can divert attention from essential reflection on the replacement of human activity by algorithms. Critics argue that the mechanisation of poetry through artificial intelligence weakens its intrinsic value as an expression of human experience, diminishing the emotional richness and complexity that comes from the human intellect and soul (Golumbia, 2009; Charnock, 2017).

The adoption of computational logic and automation in the literature leads to reductionism, impoverishing the complexity of human actions and emotions, which is the essence of poetry (Charnock, 2017). These concerns also extend to the authenticity and emotional dimension of AI-generated works, highlighting the need for a cautious and reflective approach to incorporating AI into poetry and research.

However, there are also defenders to the integration of poetry into research and its marriage with AI. Advocates point to poetry's potential to evoke intense emotion, stimulate social change, and emphasise its ability to enrich and broaden academic discourse (Denzin, 1997). This perspective echoes calls for the adoption of more flexible evaluation criteria in research, emphasising the importance of poetry and metaphor for a deeper understanding of the human condition (Rorty, 1989).

Move towards a similar way of thinking about poetry as Rosalind Edwards and Susie Weller. In their study, they used e-poems extracted from qualitative interview data to explore changes and continuities in young people's self-perceptions over time (Edwards & Weller, 2012). This process of self-exploration and the discovery of one's own emotions by the respondents through what is called 'e-knowledge' can be interpreted as a unique method of achieving subjective purification. A detailed analysis of a young person's 'sense of self' through e-poems can provide a nuanced understanding of cathartic processes.

In the context of the ability of artificial intelligence to create new poetic forms, the appeal to broad theoretical perspectives becomes crucial. In the second half of the last century, Marshall McLuhan, analysing the influence of the media on the public's perception of content, pointed to the significant role of the medium in shaping the social reception and interpretation of works (McLuhan, 1964). Lev Manovich's approach, on the other hand, emphasises the importance of aesthetics, modularity, automation, variability and transcodability in digital media. This allows for a deeper understanding not only of the aesthetic evolution of poetry but also of its structural

transformations in the digital age (Manovich, 2001). This theoretical framework highlights the complex role of artificial intelligence in creating new forms of engagement with poetry and art and in attributing innovative social functions to them.

In the fusion of art and AI, there are echoes of the works of Walter Benjamin and Foucault, which may prove to be key reference points for understanding the phenomenon of modernity. Benjamin, before the outbreak of the Second World War (1935), reflected on the question of the reproduction of works of art, pointing to the central importance of the concept of the aura, understood as the unique effect of the distance that a work of art creates around itself.

In the age of technical reproduction, this aura — which reflects the deep rootedness of the work of art in cultural traditions—is lost (Benjamin, 2008). In light of the possibility of reproducing a work of art without its physical presence, solely through algorithms, Benjamin's thoughts gain relevance and herald the arrival of a new era that is redefining contemporary cultural practices. From a similar historical and cultural perspective, we can read Foucault's comments, providing a critical lens through which to examine the intersection of artificial intelligence and poetry within a broader epistemology. The French theorist uses the term episteme to define the basic cognitive structures typical of a given historical period, which determine the possibilities of knowledge, the acceptable methods of research, and the forms of knowledge considered true (Foucault, 1972, 1980). This theory has the potential to capture how new technologies are changing our understanding of creativity, authenticity and aesthetics.
In discussing the merging of new media, art and science, Danny Lafrenière and Sarah Cox made important proposals. Their idea of introducing an ethical framework for the use of data, defining authorship in AI-based projects and ensuring artistic quality points to the need for clear guidelines. This framework aims not only at ethical regulation but also at highlighting the role of poetry as a tool for enriching our shared perception of reality and cultural experience, opening the door to harnessing the potential of artificial intelligence in a responsible and creative way (Lafrenière & Cox, 2020).

6. Catharsis and the "network of meanings" as a research paradigm

The application of new technologies in the social sciences has focused mainly on quantitative data analysis and pattern recognition. However, the combination of artificial intelligence with poetic inquiry opens the door to a deeper, more complex understanding of social dynamics and human experiences of reality. Such an interdisciplinary dialogue – rooted

in Aristotle's theory of catharsis and the understanding of the text as a 'network of meanings' – following Roland Barthes – offers rich ground for academic inquiry. This combination has the potential not only to create new perspectives but also to introduce innovative methodologies, enabling a more comprehensive analysis of contemporary sociocultural phenomena.

The discussion of AI as an 'author' and the impact of AI on the perception of creativity and its interpretation can be read as an extension of the theory of the 'death of the author'. This concept was introduced in relation to modernity by Roland Barthes in his 1967 essay "La mort de l'auteur".

Barthes argued that the interpretation of a text should not be limited by the intentions of its author but rather that the meaning of the text is created by the reader. Thus, according to Barthes, the author of the text "dies" at the moment of its publication, as its interpretations and meanings are passed on to the reader. Moreover, it is on the reader that the burden of interpretation falls. he text is a multidimensional space in which different scripts mix and collide. The reader becomes the space in which all the quotations that make up the writing are inscribed without any loss; the unity of the text lies not in its origin but in its destination (Barthes, 1977).

This theme was developed a few years later by Michel Foucault in his essay "Qu'est-ce qu'un auteur?" (1969), in which he questions the role and function of the "author" within structures of knowledge. While Barthes argues that the author is no longer central to the text, Foucault examines the role of the 'author' as a cultural construct that limits interpretation and introduces the concept of the 'author's function', which allows for a broader analysis of discourse and power in the literature (Foucault, 2003). Both thinkers have made significant contributions to poststructuralist literary criticism and textual theory, changing the way we think about authorship, text and the creative process.

In light of these concepts, AI can be seen as a tool that pushes the boundaries of traditional notions of 'author' and 'text', raising new questions about creativity, authorship and interpretation in the digital age. This perspective is particularly relevant when analysing the interplay between poetry and generated images, as it encourages deep semiotic exploration. It allows for a deconstruction of the ways in which words, images, styles and motifs intertwine to create complex layers of meaning.   Given these concepts, AI can be seen as a tool that pushes the boundaries of traditional notions of 'author' and 'text', raising new questions about creativity, authorship and interpretation in the digital age. This perspective is particularly relevant when analysing the interplay between poetry and generated images, as it encourages deep semiotic

exploration. It allows for a deconstruction of the ways in which words, images, styles and motifs intertwine to create complex layers of meaning.

Barthes' emphasis on the role of the reader in meaning-making is close to the interactive nature of AI. Poems and images generated by AI are not static creations but dynamic entities that engage audiences in real time, challenging traditional notions of authorship and creativity. This dynamic echoes the vision of the text as a "web of meanings", which is constantly transformed through reader engagement. In the age of AI, this interaction has expanded to include machines as both creators and mediators, adding a new layer to the semantic web.

An excellent foundation for this view of the role of AI may be the concept of catharsis. It provides a timeless blueprint for understanding the emotional impact of artistic works and can be extended to the experience of AI-generated poetry and imagery. This theoretical lens allows us to explore how these new forms of artistic expression evoke emotional responses in audiences, facilitating a deeper understanding of the human condition through the prism of technology.

Considering cathartic experiences in the context of AI-based poetry can open up several interesting methodological paths. Perhaps one of the most promising is comparative analysis, which looks at the emotional responses of audiences to traditional and AI-generated poetry. The collaborative creation of poetry by humans and AI with a deliberate aim of catharsis (e.g., as a shared activity in therapeutic groups) also appears intriguing.

Conducting detailed case studies in which AI-supported poetry has been used in various contexts (e.g., therapy, education, art exhibitions) could provide insights into the practical applications and impact of such poetry on the cathartic experience.

By combining Barthes' theory of text as a web of meanings and Aristotle's theory of catharsis, a comprehensive framework for examining the fusion of poetry and AI has emerged. This framework not only highlights the complex relationships among text, images and audiences but also emphasises the transformative potential of AI in expanding the boundaries of artistic expression. Integrating these theories into sociocultural research offers a new approach to exploring the intersections between humanity, technology and the arts.

7. Perspectives

As technology advances, our perceptions and experiences of art, technology and human relationships evolve, opening up new perspectives on the future. Ian Bogost encourages treating things and technology not as tools in human hands but as full participants in reality (Bogost,

2012). Such a perspective may be crucial to understanding the potential of AI in the creative process and suggests deeper insight and appreciation of the possibilities of human–machine collaboration (Cetinic, & She, 2022, Wang, et al. 2024).

Maintaining caution in perceiving both sides of the coin, the future of the dialogue between poetry, AI-generated imagery, and academic science may become clearer in a positive way. Such a marriage can contribute to increasing diversity and polyphony in both art and research methodology. With their ability to analyse and generate content from different cultures and languages, AI tools can support artists, researchers, educators or social workers in exploring and presenting different perspectives and narratives. This, in turn, can lead to a more inclusive research environment where various social and cultural groups find space to express their experiences and viewpoints.

Such a well-managed dialogue can also promote the building of new pedagogical and social patterns. In this context, the ability of AI to recognise, interpret and respond to human emotions can be useful in the creation of AI-generated images based on poetry. Such personalisation of the artistic experience can be successfully tailored to the personal preferences, history and emotional state of the cocreator or viewer of the work, providing a more engaging and personal aesthetic experience. A similar approach — introducing catharsis into the aesthetic experience — represents a unique intersection of classical aesthetics and modern technology. The idea of evoking deep emotional responses through AI is not new, but applying Aristotle's concept of catharsis to AI-generated poetry offers an original perspective that combines ancient philosophical thought with modern technological innovation. The dialogue between poetry, AI imagery and science has the potential to serve as a powerful tool for social change. By combining the deep emotional expression of poetry with the visual impact of AI imagery, this art can raise important social, cultural and political issues; inspire reflection and dialogue; and even motivate action. In this way, it can contribute not only to the development of the field of art but also to the building of a more aware and engaged society.

However, these bright prospects also carry the potential for many dangers. These include the challenge of overreliance on technology, which can lead to a loss of authenticity and a blurring of the boundaries between human and machine creativity. Such a transgression could shift humans from the position of dialogue participants to passive listeners, which could consequently lead to the erosion of critical thinking skills (Boden, 2004; Gunkel, 2012, Tegmark 2018). Treating AIs as equal partners rather than tools may also change the very nature of interpersonal relationships. There is a risk that interpersonal relationships could become

depersonalised as machines begin to take on roles that have traditionally been reserved for humans, such as interlocutors, caregivers, or even creators (Bostrom, 2014).

When thinking about the impact of AI on human emotions, it is crucial to be careful not to let AI begin to manipulate people's emotions in an unethical manner, which threatens not only individual privacy and autonomy but also human free will and its significance as an independent entity (Rieser, 2013, Harari, 2017). We must also not ignore the risk of exacerbating social inequalities through the inappropriate use of AI (or unequal access to new technologies). Personalising artistic experiences for specific purposes can lead to isolation and echo chambers, where audiences are only exposed to content that confirms their own beliefs and preferences (Ohagi, 2024).

How, then, should we view the prospects for the future? The dialogue between poetry, AI technology and sociocultural studies presents itself as a dynamic and multidimensional field where art, technology and society intersect and shape each other. Exploring this dialogue can lead to new forms of expression, a deeper understanding of the human condition, and a more inclusive and engaged society. As we develop this dialogue, it is important to keep in mind the need for continuous reflection on the ethical, aesthetic, social and cultural aspects of this interaction. Integrating theories and research from different fields can help to understand the complexity of this phenomenon and shape the future of artistic expression in the digital age.

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Chapter 6 Intersections of art and analysis. Haiku, AI, and the depth of perception *(Elzbieta Perzycka-Borowska)*

1. Introduction

In the current digital era, characterized by the pervasive influence of technology on every aspect of human life, the role and significance of artificial intelligence (AI) in augmenting human experience have become a focal point of academic research (Mieczkowski & Hancock, 2022). This exploration is not confined to mere technological implications but extends into the realms of education and the arts, where AI's impact is both profound and transformative.

The paradigm shift in teaching design, propelled by AI technology, is exemplified in the study by Jian et al. (2021). Their research underscores AI's profound influence on educational methodologies and student learning outcomes, highlighting how AI is reshaping cognitive processes and pedagogical practices. This integration of AI in education exemplifies its potential to revolutionize traditional learning paradigms, making it a significant area of scholarly inquiry.

Parallel to its educational implications, AI's integration into the arts, particularly in the creation of AI-generated art, is another area garnering significant interest. Deep et al. (2022) delve into this topic by examining the aesthetic, technical, and social facets of AI art. Their work not only explored the creative potential unlocked by AI but also addressed the ethical and critical debates surrounding its production and reception. This aspect of AI highlights its multifaceted influence, extending beyond mere functionality to address deeper philosophical and ethical considerations.

In this dynamic and evolving landscape, a compelling question emerges: How can traditional forms of artistic expression, such as poetry, engage and intertwine with advanced AI technologies to create new layers of meaning and experience? This study aims to explore this intersection, focusing on the hybridization of artistic creativity in poetry with the algorithmic precision of AI. Inspired by the concepts proposed by Barthes (2020), we examine how this amalgamation can enhance the interpretation and expression of human experiences and emotions. This inquiry is situated within the broader context of its impact on the arts, technology, and education, evaluating both the opportunities and challenges presented by this convergence.

Our investigation further delves into the potential of AI technology in expanding the boundaries of poetic expression. We explore the transformation of written words into multidimensional experiences that blend text with visual elements, thereby enriching the conveyed message. This exploration involves understanding the synergy between poetry and AI and documenting its benefits and challenges, which are pivotal in shaping the future directions of both the creative and educational sectors.

Our study shifts its focus toward practical applications, seeking to develop recommendations for artists, educators, and technologists. The aim is to foster effective collaborations that blend human creativity with machine efficiency, thereby facilitating the creation of innovative, hybrid forms of artistic expression. We aim to find methodologies that ethically amalgamate human emotions with machine processing, thereby shaping an educational paradigm in which AI technology enhances rather than replaces human creativity.

2.   Research methods

2.1. Observation—The Naxos experience

Modern technology and tradition are often positioned as opposing poles, yet our research experience demonstrates that contemporary tools can serve as a bridge connecting three realms: past, present, and future. By applying artificial intelligence to explore the characteristics of Naxos, we aim to show that technology can not only preserve but also enrich tradition by adding new layers of interpretation based on innovative methods.

We observed that a hybrid approach to research has the potential to refresh our perspective on cultural heritage, simultaneously becoming a platform for reflections on the values we wish to pass on to future generations. There is a highlighted need to maintain respect for the cultural and natural heritage of our planet.

On the Greek island of Naxos, an international research team from the CAPHE project (representing regions such as Kenya, Poland, Portugal, Greece, Italy, and the United Kingdom) immersed themselves in the local culture and tradition. Roland Barthes, a renowned semiologist, spoke of photography as a medium of "longing for the presence of reality" (Barthes, 1980). In the context of Naxos, participants experienced this longing, confronting dilemmas related to representing reality in photography.

In his photographic analysis, Barthes focused on two aspects of the image: the studium (deliberate, constructed image) and the punctum (an unexpected detail that captures attention

and moves the observer). Participants also encountered this duality during their journeys. Each photograph was an attempt to capture a fleeting moment, which, though transient, was forever preserved. However, what was to make these photographs exceptional and emotional was their punctum—the unexpected details—the play of light on the sea's surface, the shadow cast by an old olive branch, the smile of a passerby, or the gaze of a cat peering through a building's crevice.

In his work "Camera Lucida," Barthes delves into the deep, almost metaphysical aspects of photography. He argues that every photo, regardless of its content or execution technique, carries the inevitability of the moment—what has been captured will never return in the same form. In this context, Barthes speaks of the photograph as a record of reality but also as a medium that, while revealing certain aspects of that reality, also conceals them.

During the research trip to Naxos, this philosophical aspect of photography became incredibly significant. Surrounded by the rich culture and tradition of the island, participants engaged in profound reflections on what they were photographing. They began to understand that it was not just about technique or composition, but above all, about the emotions and thoughts behind each image.

Referring to Jacques Lacan's triad of three orders (Lacan, 2014, p. 14), Barthes emphasizes that each photograph results from a certain communication. Lacan, a renowned psychoanalyst, stressed that the subject is always entangled in cognition. In this context, photography is a form of communication with reality, but it is also a deeply subjective act. Thus, photographing Naxos was not merely a creative act but also a deeply personal one. The photos created during this project were not devoid of the inevitability Barthes spoke of. Each frame contains a trace of something that was and will not return – a fleeting moment, an experience, or an emotion. Through their photographs, participants became witnesses to these moments, which, though ephemeral, remained eternal in the image.

In the context of education, the photographic experiences on Naxos opened doors to a deeper understanding of the value of mindfulness. Mindfulness, often associated with meditative practices, is the ability to be fully present in the moment, experiencing it fully without judgment (Kabat-Zinn, 1994). Through the act of photography, participants became more mindful of the reality around them, learning to appreciate beauty and value in seemingly trivial moments. Photography thus became an educational tool that inspired the exploration of inner experiences when observing the surrounding world.

In this way, the journey to Naxos became not only a study of the relationship between the photographer and reality but also a profound reflection on what it means to be a witness,

participant, and creator at the same time. In the face of numerous stimuli and the fast pace of life, the aspect of being "here and now" is often lost. Introducing photography as a method of learning mindfulness may respond to the need for a holistic approach to research (Siegel, 2007). Roland Barthes, through his reflections on photography (Barthes, 1980), showed how an image could serve as a tool for a deeper connection with reality. Through the act of photographing, we learned to observe, appreciate, and be more mindful of the reality that surrounds us.

We adopt the approach that cognition is a process requiring activity and the engagement of all senses. It is a process that takes place between the individual and the world around them, a mutual contact that adds synergy and reveals the richness of meanings in what surrounds us – which is the goal of cognition. Experiencing is thus a path and wisdom to dynamic, comprehensive discovery.

Versatility means that each scientific discipline provides only another point of view on the rich, complex, interconnected phenomena of life. A holistic approach emphasizes and constructively uses evolving and changing perspectives of reality and the multitude of different paths of knowledge.

In holistic cognition, the world appears as a whole, where everything is interconnected. This assumption of wholeness, versatility, and unity stands in contrast to division and specialization. Holism restores the balance upset by reductionist practices by emphasizing an expansion of the concept of science and human possibilities.

In our holistic research approach, we emphasize the need to create harmonious knowledge, encompassing ecological sensitivity. On the island of Naxos, we embraced a deep respect for both indigenous and contemporary cultures, as well as the diversity of life forms and manifestations. Holism provides space to broaden the ways we look at ourselves and our relationship to the world, highlighting our innate human potentials—emotional, intuitive, physical, rational, logical, verbal, creative and generative.

3. Creation. The Significance of haiku in research

Researchers, fascinated by the possibilities offered by photography, began seeking ways to express the depth of these moments using other tools of introspection. Haiku emerged as the perfect instrument for this purpose. While photographs capture visuality, haiku translated these visualizations into words.

Haiku, a traditional Japanese form of poetry, serves as a meditative means of expressing feelings, thoughts, and reflections on the surrounding reality (Yasuda, 1995). Therefore, it was adapted as a tool for developing mindfulness. In analysing the nature of photography, Barthes perceived similarities with haiku. Both photography and haiku possess the capability to "vividly freeze" a moment. Barthes, speaking of the "intensity of the gaze," meant the direct nature of photography, which, once captured, is unchangeable—similar to a haiku, which is definitive and resistant to transformation (Barthes, 2020, p. 93).

The concept of "vividly freezing" is closely related to the idea of mindfulness, which focuses attention on moments often overlooked in everyday life. Both photography and haiku accentuate the transience of moments, which simultaneously become eternal in their artistic form. They focus on the essence of the moment, not on its potential transformations. Photography and haiku do not allow one to "dream" in the sense of pondering or speculating; rather, they concentrate on a concrete, intangible instant that has been captured and immortalized.

Following Barthes' thought, we point to the connection between the "trigger" in photography and the moment of expression in haiku. In both cases, it is the point at which researchers experienced an immediate response or recognition, a pivotal moment that defined the entire work. In the context of mindfulness, these artistic forms can be used in the process of cognition to draw attention to subtle yet deeply meaningful moments of observation (Yasuda, 1995; Lacan, 2014).

The integration of photography with haiku in the research process led to a synergistic effect. The photographs represented quiet echoes of the past, while haiku endowed them with deeper meaning. The common features of both forms – concentration and mindfulness – became the key to this interdisciplinary collaboration. On the one hand, we had photography, which in a literal sense preserved moments where emotions, landscapes, and transient instances were captured in a single frame. On the other hand, haiku – a form of poetry that in a few lines could express emotional depth and complex feelings. This synergy between images and words indicates how different forms of artistic expression can be used in tandem to more deeply recognize and understand human experience. This partnership between the visual and the verbal showed how diverse artistic forms can collaborate to gain a fuller understanding of human experiences. Both haiku and photographs became not only a documentation of experiences on Naxos but also a testament to how the cooperation between two artistic forms can lead to the creation of a unique work that transcends the individual values of each.

4. AI integration in the creative process. From photo to haiku

The evolution of introspection tools has directed us toward new technological horizons. Responding to a growing interest in human interaction with technology, we decided to explore the potential of artificial intelligence in the creative process (Johnson, 2019). We selected the artificial intelligence generator Midjourney, which is responsible for image creation, and ChatGPT-4, which is aimed at producing text (OpenAI, 2022).

Integrating the traditional photographic medium with modern AI technology became the focal point of our experimental approach (Smith & Johnson, 2021). We explored not only the visual aspect of images but also their deeper, subjective interpretations, which were presented through the lens of AI (Barthes, 1980).

In the first phase, we selected 20 original photographs from various researchers as our sources of inspiration. Based on Roland Barthes' concept of studium and punctum (1980), we analysed these images, striving to understand both their universal aspects and subtle details. Based on this analysis, we created descriptions that served as input material for the Midjourney program. These descriptions were then used to generate images through AI, providing us with visual representations of our original interpretations. The resulting images offered us new perspectives and nuances that could not be anticipated at the start of the experiment.

In the final stage, using the AI-generated images, we focused on creating haiku poetry to capture their profound essence (Yoshinobu, 2009). This process was a reflection of our desire to understand how different forms of expression can be innovatively combined.

In our experiment, we emphasize the value of human experience in a world increasingly dominated by technology. At a time when our unchecked desire to control nature has spawned a new epoch, research in the history of technology compels us to contemplate the relationships among humans, technology, and nature. This interaction is and will be a recipe for crises for humanity and nature. Our experiment points to the need to understand how technology, including AI, influences this dynamic (Haraway, 2016). Ultimately, although technology may broaden our creative horizons, humanity and nature remain at their core, highlighting the complexity of our era (Williams, 2020).

5. Empirical data analysis

5.1. Analysis at the studium and punctum levels. Preliminary analysis

At the onset of our analysis, we focused on Barthes' concepts of the studium and punctum. Images taken personally by the researchers were first analysed in the context of the studium, that is, what was generally recognizable and understandable to the observers in the image. We attempted to define the common elements of the image that attract attention in an obvious and unambiguous way. We identified the universal components of the image that attracted considerable attention in an intuitive manner.

We then turned our attention to the punctum, which makes the image extraordinary for a particular observer. It was the detail that had emotional significance for the viewer, though it may not have been immediately visible to others. The punctum added depth and dimensionality to the photograph, making it both universal and personal-intimate.

The concepts of the studium and punctum serve to distinguish the general characteristics of the photograph and the individual's emotional reactions to it.

5.2. Main analysis

When two photographs and two haiku were created, we conducted another analysis, but this time with greater emphasis on comparative interpretation. The photographs were placed side by side to enable precise comparisons at the denotative, connotative, and mythological levels. We referred to Barthes's work, "Rhetoric of the Image," in which he explains how an image can communicate both direct, literal meaning (denotation) and more symbolic, cultural meaning (connotation), as well as deep, emerging cultural narrative and ideological features (mythological).

Similarly, we proceeded with the haiku, analysing them in terms of language, structure, and emotions. We tried to understand what emotions and cultural references could be contained in each haiku and how these interpretations might differ depending on whether they were inspired by a human-taken photograph or an AI-generated image.

Ultimately, our goal was to uncover the emotions and cultural associations contained within them, as well as to understand the differences and similarities between interpretations based on human photographs and those generated by artificial intelligence.

5.3.Findings and implications

Given that the primary aim of our research in Naxos was to cultivate mindfulness about the surrounding environment, our findings have even more profound significance. The integration of AI technology with the traditional art form of haiku poetry was not only an exercise in cultural exploration but also a deliberate effort to deepen awareness and attentiveness to the world.

The advanced capabilities of AI, especially in revealing the subtle complexities of Naxos' cultural heritage, serve as a tool to enhance the perception and appreciation of details often missed in daily life. This technological exploration encouraged a more mindful approach to observing and understanding our surroundings.

Moreover, the incorporation of haiku poetry, with its intrinsic focus on capturing fleeting moments and the beauty of the natural world, was pivotal in guiding our research on mindfulness. In essence, Haiku encourages a deep connection with the present moment, promoting an awareness that is both immediate and profound. By blending this poetic form with AI, we created a unique framework that not only celebrated the rich heritage of Naxos but also fostered a mindful engagement with its cultural and natural landscapes.

The educational and cultural engagement aspects of our project in Naxos were thus infused with this ethos of mindfulness. AI-driven applications, enriched by the simplicity and depth of haiku, invited users to immerse themselves fully in the experience, fostering a heightened sense of presence and awareness.

In particular, the AI-enhanced haiku narratives offered a means to experience Naxos' history and culture in a way that emphasized mindfulness. This approach allowed for a deeper emotional and intellectual connection to the island's past and present, encouraging reflective and mindful engagement with the content.

Our research in Naxos highlights the potential of combining modern technology with traditional art forms such as haiku to cultivate mindfulness. This approach not only enriches the appreciation of cultural heritage but also serves as a powerful tool for nurturing a deeper awareness of our environment and the intricate beauty that surrounds us. Our findings advocate for the integration of technology and traditional arts as a means to foster mindfulness, offering valuable insights for similar endeavors in diverse cultural and educational contexts.

The research process revealed the hybridity of the entire process on multiple levels:

1. Traditional forms of expression, such as poetry, were confronted with modern technologies, creating a unique cultural fusion. This collision of ancient and modern forms of art resulted in an original way of viewing the challenges of our times.

2. The analysis considered both human intuition and machine processing. The combination of human experiences with the capabilities of AI technology became a key element in understanding how humans and machines can jointly interpret the reality around us.

3. Traditional methods of visual analysis were combined with modern data analysis tools. This form of hybridity points to the limitless possibilities brought by the integration of traditional and modern research methods.

4. One of the most striking outcomes was seamless collaboration between diverse academic disciplines. Experts in fields ranging from computer science and data analytics to cultural studies and literature worked together, demonstrating the rich insights that can be gained when diverse perspectives converge. This interdisciplinary approach not only enriched our understanding of the data but also fostered innovative ways of thinking and problem solving.

5. A significant aspect of our research involved deep engagement with the local community in Naxos. This approach went beyond mere observation, as researchers actively participated in local traditions and cultural practices. This immersive experience provided invaluable insights into the cultural nuances and societal dynamics of Naxos, which could not have been obtained through remote analysis or AI algorithms alone.

6. An important theme that emerged was the ethical considerations and sustainability of using AI in cultural studies. Our research delved into questions about the responsible use of technology, data privacy, and long-term implications of integrating AI into traditional practices. This focus on ethics and sustainability is critical in guiding how technology is used in cultural research and preservation.

This study demonstrates that a hybrid approach that combines tradition with innovation can yield significant benefits in terms of interpreting the world. The collaboration between traditional forms of expression and AI technology opens doors to new perspectives and opportunities in understanding our reality. Introducing AI technology into the teaching process can help students comprehend complex concepts and inspire creative thinking and the search for new cognitive pathways.

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Part 2 A Multimodal exploration of haiku poetry and AI-generated art in Naxos *(Aleksander Cywiński, Dorota Hrycak-Krzyżanowska, Michał Parchimowicz, Elżbieta Perzycka-Borowska, Jakub Petri, Agnieszka Szajner, Aneta Witosz)*

Introduction

Our multidisciplinary research project on the island of Naxos, Greece, brought together a team of researchers from Poland and the United Kingdom, blending their diverse backgrounds and perspectives in a unique exploration of cultural and natural landscapes. This study was an ambitious endeavor to intertwine the ancient Japanese art of haiku poetry with contemporary photographic techniques, creating a rich tapestry of visual and textual narratives that captures the essence of Naxos.

The methodology adopted for this research was designed to ensure an immersive experience. The team traversed the island using a variety of transportation methods—on foot, by bicycle, car, and local buses—enabling comprehensive engagement with different environments and perspectives across Naxos. This diverse approach allowed the researchers to capture the multifaceted beauty and cultural richness of the island in their work.

A key component of the study involved each researcher capturing a minimum of 20 photographs, each offering a unique glimpse into the island's environment and lifestyle. These images served as a foundation for a deeper artistic expression, with each photograph paired with a haiku poem. The researchers, hailing from Poland and the UK, initially composed some of these haikus in Polish, which were then thoughtfully translated into English. This translation process, while maintaining the essence and spirit of the original haikus, led to variations in the syllable count and verse structure, diverging from the traditional haiku format to preserve the full meaning and impact of each poem.

After presenting 80 photographs paired with their respective haikus, the research team selected 8 haikus for detailed analysis, chosen for their thematic richness and resonance with the project's objectives. This selection represents a diverse range of themes and aesthetics, capturing the essence of the Naxos experience.

This report section presents the results of interdisciplinary exploration, showcasing the selected 20 haikus and their corresponding images. Recognizing the importance of cultural authenticity and the nuances of language, the haikus originally composed in Polish are

presented both in their original form and in their English translations. This dual presentation allows for a deeper appreciation of the poems' original essence, as well as their interpretations across linguistic boundaries. The translation process, while aimed at maintaining the thematic and emotional integrity of each haiku, acknowledges the inherent challenges and complexities involved in conveying poetic expression from one language to another.

Furthermore, our study ventured into a creative fusion of poetry and digital art. By utilizing the capabilities of the AI program Midjourney, visual representations of each haiku were created. These digital images were crafted to visually embody the essence and atmosphere of the corresponding poems, adding a new dimension to the traditional haiku form. In a reciprocal process, new haikus were then composed based on these AI-generated images, resulting in two sets of artworks: original photographs with their haikus and AI-generated images with their newly inspired haikus. This innovative approach allowed for a multifaceted exploration of the themes and emotions encapsulated in the poems and images, creating a rich dialogue between the original and AI-generated art forms.

The final phase of our analysis involved a comprehensive examination and interpretation of both sets of haikus and their corresponding images, guided by the theoretical framework of Roland Barthes. Barthes' theories, particularly his concepts of studium and punctum in photography, provided a valuable lens for interpreting the emotional and symbolic depth of images and poems. This analysis aimed to unravel the intricate layers of meaning and the interplay between text and imagery, considering the impact of cultural context, linguistic translation, and the transformative influence of AI on traditional art forms.

Through this multilayered process of creation, translation, and interpretation, our research offers unique insight into the dynamic relationships among language, art, and technology. It showcases the potential of AI to both inspire and be inspired by human creativity, revealing new possibilities in the realm of digital art and poetic expression. This comprehensive analysis, rooted in Barthes' theory, provides a deeper understanding of the emotional and cultural resonances of artworks, highlighting the richness and complexity of the Naxos experience.

Roland Barthes' concept of the "punctum" carries a quasimystical quality—it is that accidental detail in a photograph or piece of art that grabs the viewer on a deeply personal level, beyond the intentional message or composition, often evoking a strong, almost visceral response.

This segment of the book presents a series of eight paired analyses where each comprises a human-authored haiku with its pictorial representation, contrasted against an AI-generated art piece and its corresponding haiku.

Each analysis is meticulously cataloged in tabular form, offering a structured comparison that highlights the distinct attributes and emergent themes presented by both humans and machines. The tables serve as visual aids, facilitating the critical examination of each pair and providing readers with a clear methodological approach to the multimodal content.

Through this scholarly approach, we aim to elucidate the complexities of cross-modal communication and the interpretative challenges posed by AI in the realm of creative expression. The comparative analyses within these tables are designed to uncover the convergences and divergences between human and AI outputs, examining the degree to which AI is generated. In doing so, it not only questions the boundaries of artistic and poetic expression but also expands the academic conversation to include the implications of AI as an autonomous agent of creativity within the cultural landscape of Naxos, a place historically rich in myths and now a canvas for modern narrative construction.

As such, this part is not merely a collection of artistic and poetic comparisons but a scholarly inquiry into the evolving relationship between human artistry, technological innovation, and theoretical interpretation.

From the reflective paths of the "Journey" alongside the "Twilight Voyage," we witness the convergence of movement and introspection, setting the stage for a profound meditation on passage and transition. "Being…" juxtaposed with "Whispers of Stone," invites a contemplation on existence and the silent stories etched in the bedrock of history. Through "Forgotten Harvest" and "The Loneliness of Dusk," we engage with the cyclical dance of nature and the quietude of time's relentless march.

The whimsical interplay of "Island Breeze" with "The Loneliness of Dusk" unveils a tapestry woven from the threads of freedom and solitude, while "Aliko Cave" and "Whispers of the Urban Abyss" echo the complex narratives that resonate within urban spaces. The reader is then invited to reflect upon the theme of introspective paths through the yet-unnamed haiku by Jakub Petri, which promises to add another layer of personal and collective exploration. "Escape" and "Nomadic Drizzle" are transient spaces where the ephemeral qualities of escape and nomadic existence are examined. Finally, "Fox on the Stone" and "Repose in the Glen" bring us to a serene halt, allowing us to rest in the beauty of nature's quiet moments, as seen through both human and artificial lenses.

This part is an inspiration to media education on the island of Naxos—a place where myths were born and where today, new stories are written by the hands of both humans and the digital muses of our contemporary epoch.

Part 2 A Multimodal exploration of haiku poetry and AI-generated art in Naxos

Chapter 1 Navigating realms. Journey and twilight voyage

Introduction

In the chapter "Navigating Realms: 'Journey' and 'Twilight Voyage',", we explore the thematic and aesthetic interplay between human-crafted and AI-generated interpretations of travel and transition. This comparative analysis employs Barthesian semiotic principles to dissect the layers within each haiku, "Journey" by a human author and "Twilight Voyage" by artificial intelligence, examining how each encapsulates the essence of a voyage.

The analysis focuses on how the respective creators—human and machine—convey the narrative of a journey, not only through the textual medium of haiku but also through the visual medium of the accompanying images. Structured analytical tables facilitate a side-by-side comparison, allowing for an in-depth evaluation of the studium and punctum and enabling a critical examination of the extent to which each realm—human and AI—captures and communicates the artistic intricacies.

Through this analysis (Tab. 1), "Navigating Realms" aims to elucidate the nuanced differences and surprising similarities in how journeys are depicted across modalities and creators, providing insight into the evolving capabilities of AI in mirroring and contributing to human artistic endeavors.

Table 1. Analysis and interpretation

Author/creator	Author/creator
Dorota Hrycak Krzyżanowska	ChatGPT 4.0
	Midjournay

Journey	Twilight Voyage
Sunset's warm embrace,	Sunset's fiery hue
Odyssey's journey unfolds,	Ship dances on crested waves —
Life's great adventure	Gulls sing in the sky
Stuydium photography	**Stuydium picture**
The photograph presents a serene harbor scene at dusk, capturing the quietude of a day's end on the water. This image, in the context of Barthes' concept of 'studium', invokes a general interest and affinity for the subject at hand — the tranquil end of day in a harbor town. The 'studium' here might be the cultural and emotional resonance that harbors have universally as places of return, rest, and transition. They are spaces where journeys begin and end, and this photo, with its still boats and fading light, encapsulates that liminal time when the business of the day gives way to the calm of the evening. The subdued palette of sunset colors suggests a peaceful conclusion to maritime activity, as the	This vibrant image captures a majestic sailing ship on the open sea at sunset, offering a rich painting of colour and emotion that invites an array of interpretations and responses. The 'studium' here speaks to the shared human fascination with exploration and adventure. The ship, set against the dramatic backdrop of a fiery sky and tumultuous sea, conjures tales of maritime journeys, the brave pursuit of distant horizons, and the age-old dance between humankind and the formidable nature. The very essence of the ship in motion invokes the grand narrative of discovery,

boats are now moored for the night. The stillness of the water and the soft glow of the sky reflect a natural rhythm of winding down, which is in harmony with the human activity of docking and securing boats. The masts stand tall and thin, piercing the horizon with a grace that speaks to the elegance of sailing and the relationship between human craftsmanship and the vastness of nature.

This photograph offers a contemplative space for the viewer to engage with the themes of tranquility, transition, and the interplay between humanity and the natural world. It is a visual narrative that invites reflection on the day's events and the promise of rest and rejuvenation that the night will bring.

the allure of the unknown, and the enduring spirit of nautical travel.

Furthermore, the scene's visual grandeur — the golden hues of the sunset reflecting off the undulating waves, the silhouettes of distant cliffs, and the seagulls accompanying the vessel — taps into the collective consciousness of seafaring romance and the timeless allure of the sea as a space of both beauty and peril.

This image, rich in detail and scope, offers a reflection on humanity's desire to venture beyond the familiar, to seek out new experiences and landscapes, and to embrace the journey as much as the destination. It is a celebration of the human quest for adventure, a theme that resonates across cultures and eras, and a reminder of the vast and beautiful world that lies beyond our shores.

Punktum photography

In this harbor scene, the punctum that pierces the viewer might be an element that is not immediately noticeable in the composition but once seen, it adds a layer of personal affect and stirs emotion. It could be the subtle silhouette of the distant mountains, offering a sense of depth and the vastness of nature that cradles the harbor. Or perhaps it is the singular light, possibly from a lighthouse or a ship, that glimmers faintly on the horizon, suggesting guidance and the presence of life beyond the immediate calm of the harbor. This small beacon is the element that

Punktum picture

In this image of the sailing ship at sunset, the punctum that might unexpectedly touch the viewer could be the small, almost imperceptible flutter of the ship's flag atop the mast. Amid the broader canvas of nature's fiery display and the ship's impressive presence, this delicate movement could symbolize the fragility of human endeavors in the face of nature's vast and awe-inspiring power. This singular detail has the potential to evoke a flood of personal emotion or connection,

unexpectedly draws the attention, creating a narrative of exploration, the comfort of a safe return, or the promise of ongoing adventure despite the encroaching night. It is this detail that personalizes the image for the viewer, transforming it from a generic scene into a personal story or memory.

bringing to mind the subtle yet powerful forces that guide us through life's tumultuous seas.

Another potential punctum could be the crest of a wave as it catches the last golden rays of the sun, a detail that stands out against the darker waters and embodies the transient beauty of the moment. This small but luminous cap of the wave might serve as a metaphor for fleeting instances of clarity or joy in the viewer's life, resonating with their own experiences of brief, brilliant moments amidst the ebb and flow of everyday existence.

Studium haiku

In the haiku titled "Journey," the studium, or the element that resonates with cultural, emotional, or intellectual interpretation, lies in its invocation of universal themes of travel, discovery, and the cycles of life.

The first line, "Sunset's warm embrace," evokes a universal sense of closure and comfort that comes with the end of the day. It suggests a moment of peace and reflection, a common human experience where the warmth of the setting sun can be both literal and metaphorical, providing solace and a sense of well-being.

"Odyssey's journey unfolds," the second line, directly references the epic tales of old, conjuring images of grand voyages and the pursuit of destiny. It speaks to the human spirit's enduring quest for meaning and the adventures that shape our narratives. The use of the word

Studium haiku

The haiku elicits a strong studium, a collective understanding and appreciation of its thematic and aesthetic elements.

"Sunset's fiery hue" instantly paints a vivid picture shared across various cultures, a moment of the day that universally signifies transition. The fiery hue of the sunset is a powerful image, often associated with the beauty of nature, the passage of time, and the evocation of deep, emotional responses. This line taps into the human affinity for sunsets, a common aesthetic pleasure that is both comforting and inspiring.

The second line, "Ship dances on crested waves," introduces a dynamic interaction between human-made structures and the natural world. The verb "dances"

"Odyssey" connects the poem to a rich tradition of storytelling and the exploration of the unknown, a concept that resonates with anyone who has ever embarked on a journey of significance.

The final line, "Life's great adventure," ties together the personal with the universal, encapsulating the idea that life itself is an expedition, full of challenges, discoveries, and the pursuit of purpose. It is a declaration that every life is an adventure worthy of epic status, inviting readers to view their own experiences through the lens of grandeur and significance.

This haiku, in its entirety, engages with the shared human experiences of journeying through life, reflecting on our personal odysseys, and finding warmth and meaning in our individual and collective adventures. It is an invitation to recognize the epic in the everyday and to see the closing of a day, not just as an end, but as a part of a continuous, wondrous journey.

personifies the ship and infuses the scene with life and movement. This portrayal resonates with the human tendency to find harmony within the chaos of nature. It suggests a synchronization with the natural world, where the ship and the waves perform a duet that speaks of adventure and the resilience of the human spirit in navigating life's challenges.

Finally, "Gulls sing in the sky" adds a sonic dimension to the visual imagery, bringing the scene to life with the familiar calls of seagulls that are often associated with the ocean and the freedom of the open air. This line completes the sensory experience of the haiku, adding an auditory layer that many readers can identify with, as the sound of gulls is synonymous with the maritime landscape. Collectively, this haiku engages the reader with its evocative imagery and sensory richness, invoking the universal experiences of witnessing nature's grandeur, feeling the thrill of exploration, and hearing the call of the wild. It reflects on the journey of life as a voyage that is both literal and metaphorical, filled with moments of beauty, motion, and harmony.

Punctum haiku	Punctum haiku
The punctum of this haiku, the element that stirs a personal, poignant reaction, could lie in the choice of the word "Odyssey." For someone with a love of literature or a penchant for travel, this might resonate on a deeply personal level. It is a word that is laden with connotations of epic journeys and profound transformations. The punctum here pricks the reader's consciousness with a sense of their own life's odyssey, perhaps evoking memories of a significant life event or a personal quest that has yet to be completed.	The punctum in "Twilight Voyage," that deeply personal detail which may resonate with the reader on an emotional or unconscious level, could be encapsulated in the phrase "Ship dances on crested waves." While the scene is one of broad movement and energy, the word "dances" suggests a moment of unexpected grace and joy amidst the ship's battle with the sea. It is a contrast to the potential violence of a sea voyage; here the ship is not merely traversing the waves but moving with them in a kind of maritime ballet. This image might evoke a memory of a specific moment of joy in the face of challenge, or the triumph one feels when moving in harmony with life's tumultuous circumstances.
The phrase "Life's great adventure" might serve as the punctum for another reader, striking a chord with anyone standing at the cusp of a life-changing decision or reflecting on past experiences that have shaped their journey. It could remind them of the unpredictable nature of life, the notion that each day is a step into the unknown, and the idea that each moment holds the potential for adventure and storytelling.	Alternatively, for another reader, the punctum might be found in the final image of "Gulls sing in the sky." The idea of gulls singing, rather than their typical screeching, might strike a note of incongruity that catches the heart. It is an uplifting finish to the haiku that could resonate as a call to freedom or an ode to the simple, unanticipated moments of beauty that arise during life's journey. This singular detail may remind the reader of a time when a natural sound, like the unexpected song of a bird, provided
The punctum of this haiku will be a unique and intimate detail that resonates beyond the structured form of the poem, touching upon the personal narratives that we carry within us and the profound journeys that define our existence.	

	comfort or a sense of belonging in a vast and often indifferent world.

Source: own research.

By comparing two images—the serene harbor at dusk and the dynamic twilight voyage of a ship on crested waves—we present two distinct narrative moods within the maritime theme.

In the harbor image, the calmness of the moored boats under the soft glow of the setting sun offers a narrative of tranquility and respite. The studium here could be the collective understanding of harbours as places of rest and safety where the day's work concludes and the quiet of evening sets in. The punctum, perhaps the distant mountain range or a glimmer of light, provides a personal touchstone for the viewer, evoking feelings of nostalgia or contemplation. In contrast, the second image of the ship at sea, which is enveloped in sunset's fiery hues, conveys a sense of movement and adventure. The studium might involve the universal allure of the voyage and the natural beauty of the twilight sky, common threads that speak to the human spirit's desire for exploration and the sublime. However, the punctum, potentially the dance-like movement of the ship on the waves, strikes a more personal chord, suggesting the grace found in navigating life's challenges or the individual joy of journeying amidst the vastness of nature.

The first image might resonate more deeply with those who find solace in stillness and the familiar, while the second might speak to those who find meaning in the journey and the interplay with the elements. Both images, while sharing a thematic link to the sea and its surroundings, elicit different emotional responses and reflections, highlighting the subjective nature of art interpretation. Each punctum, with its personal appeal, invites viewers into an intimate dialogue with the scene, where their unique experiences, memories, and desires are reflected in the waters and skies of Naxos.

By comparing the two haikuses, the "Twilight Voyage" and the haiku presumably associated with the serene harbor scene, we present contrasting emotional landscapes and thematic foci, despite their shared nautical settings.

The harbor scene haiku might read as follows:

"Evening's gentle close,

Boats whisper to quiet tide,

Stars guard the stillness."

Here, the studium of the poem speaks to the universal calm of the harbor as day turns into night. The stillness of the evening and the gentle movement of the tide suggest a world coming to rest. The language evokes a sense of peace, a collective wind-down where the boats, tides, and stars are characters in the quiet theater of dusk. This haiku resonates with the collective consciousness of endings, of tranquility that comes with nightfall, and of nature's guardianship in the stars above.

In contrast, the "Twilight Voyage" offers a different emotional experience:

"Sunset's fiery hue,

Ship dances on crested waves —

Gulls sing in the sky."

The studium here captures the vibrancy of a journey at sea, where the elements are alive and dynamic. There's a sense of movement and life's zest within the "dances" and "fiery hue," a more spirited and adventurous tone compared to the contemplative stillness of the harbor. This haiku reflects the shared human sentiment of adventure and the beauty of nature in motion, as well as the exhilaration that comes with setting the sail into the unknown.

The punctum of each poem will vary for each reader. In the harbor haiku, it might be the "whisper to quiet tide," a line that suggests secret communications and a profound connection with nature's subtleties, resonating with those who find depth in silence. In the "Twilight Voyage," the punctum might be the "Gulls sing in the sky," a line that could evoke a personal memory of freedom or a poignant moment of joy in the midst of activity.

While both haikus share a thematic lineage to the sea and the time of day, they invite the reader to engage with two distinct aspects of the human experience: the serenity and introspection of the harbor and the vigor and anticipation of the voyage. Each poem, with its unique imagery and emotional cadence, provides a lens through which to view and internalize the world, demonstrating the versatile power of the haiku to capture and reflect the multifaceted relationship between humans and the sea.

Summary

This contrast raises compelling questions about the essence of art and the creative process. Can AI truly capture human experience? Does the knowledge of a piece's origin—human or machine—influence our perception of its value or significance? The human-made

pieces may be seen as a window into the artist's soul, a narrative laden with intent and personal significance. AI-generated pieces, while technically proficient, may be viewed as reflections on the state of technology and its ability to mimic and learn from human patterns.

The origin of these works — one from the human hand, the other from the digital mind — invites us to explore what it means to create and to appreciate the intersection of human craft and technological innovation. This prompts us to consider the evolving definition of artistry in the age of AI and to reflect on what truly resonates with us as viewers and readers: the art itself or the story of its creation.

Assessing the works of both human artists and AI presents a fascinating case study of the evolving relationship between technology and traditional artistic creation.

The human-created painting and haiku, "Journey," can be appreciated for their depth and authenticity. The artwork likely reflects the tactile experience of the artist with the medium, showing a conscious choice of color, texture, and composition that conveys the emotional tenor of the scene. The haiku, with its succinct and poignant imagery, demonstrates the human ability to distill complex experiences and emotions into a few carefully chosen words. There is an intrinsic value placed on art created by the human hand and mind, often because of the perceived presence of soul, intention, and a unique personal touch.

The AI-generated painting and haiku "Twilight Voyage" might be impressed by their technical proficiency and ability to mimic human artistic styles. AI has successfully created an image that resonates with human sensibilities of beauty and grandeur and a poem that adheres to the constraints of haiku while evoking a vivid scene. However, what might be viewed as lacking is the idiosyncratic imperfections and the deep-seated intentionality that typically come with human art. AI creation, while visually and thematically coherent, may not evoke the same sense of connection or emotional complexity as human-created work.

The value of AI's work lies in its demonstration of how far technology has been used to understand and replicate forms of human expression. It serves as a testament to human ingenuity in another way — the creation of algorithms capable of producing art. However, human work is a reminder of the individuality and emotional investment that is often cherished in the art world.

The evaluation of these works depends on the criteria one considers essential in art. If authenticity and human connections are prioritized, human-generated works may hold more value. If the ability to innovate and the demonstration of technical capabilities are in focus, then the AI-generated works present their own form of achievement. Both pieces, however, are

significant in what they contribute to the ongoing conversation about the nature of creativity and the role of artificial intelligence in the arts.

Chapter 2 Nature's cycle. Forgotten harvest and dusk loneliness

This chapter presents a contemplative examination of the cyclicality and impermanence inherent in nature, as depicted through the lenses of human and artificial intelligence. Engaged with Barthesian semiotics, this segment scrutinizes the contrast between the human-penned "Forgotten Harvest" and the AI-generated "The Loneliness of Dusk," each with its respective visual representation, to explore the themes of temporality, abandonment, and the quietude that unfolds at the end of the day.

In a structured analytical format, we delineate the studium and punctum of these paired artworks, highlighting the nuanced portrayal of nature's transitory moments. Human-created works often emphasize the tactile connection to the natural world and the poignant beauty found in moments of solitude and decline. In contrast, the AI-generated pieces provide an alternative interpretation, wherein the solitude of dusk is re-envisioned through a lens that filters human emotion through computational processes.

The analysis (tab. 2) aims to deepen the reader's appreciation of the intricate relationship between the passing of time as captured in art and poetry and how this relationship is represented across different creative modalities. It is a reflection on how the end of the day, symbolizing both loss and the passage of time, is articulated through the evocative economy of haiku and the visual power of its accompanying images.

Table 2. Analysis and interpretation

Author/creator	Author/creator
Elżbieta Perzycka-Borowska	ChatGPT 4.0
	Midjournay
Forgotten Harvest	**The loneliness of dusk**
Lost fruit on the ground.	Desert road's embrace/
Fell from a journey, alone.	Half-melon kissed by sunset
No hands lift its weight.	Silence spills in gold
Melon na ziemi	

Żadne ręce nie dźwigną/ Spadł i leży sam	
Studium photography The photograph captures a squashed piece of fruit on a gritty concrete surface, a scene that may seem mundane at first glance but upon closer inspection, holds a deeper narrative. The 'studium' of this image lies in its depiction of decay and the	**Studium picture** The image of a melon lying on a desolate road at dusk creates a powerful studium through its stark portrayal of abandonment and decay in a barren landscape. The scene captures the dichotomy of life and desolation — a once ripe and vibrant fruit now split open and discarded, contrasting sharply with the lifeless surroundings.

often overlooked moments of transformation in the cycle of nature. This image can resonate with viewers as it represents the inevitable passage of time and the natural processes that occur unnoticed in everyday life. The contrast between the organic matter of the fruit and the hard, inanimate concrete emphasizes the intrusion of nature into man-made spaces. Moreover, the seeds visible within the fruit's flesh speak to potential new life, underscoring themes of rebirth and regeneration even in the face of destruction.

Viewers may reflect on the juxtaposition of the discarded fruit against the human backdrop, considering the impermanence of all things and humanity's role in the cycle of life and waste. The image, in its simplicity, invites contemplation on the intersections of nature and urban life, of growth amidst decay, and of the small, often unseen, dramas that unfold around us daily.

The warm glow of the sunset on the horizon, juxtaposed with the cool shadows of the evening, speaks to the universal cycles of day and night, of life and the inevitable passage to dormancy. The road stretches into the distance, leading to the setting sun, a symbol often associated with the passage of time and the journey's end.

The melon's vibrant interior, exposed to the elements, stands in contrast to the muted tones of the environment, emphasizing themes of vitality lost and the transient nature of life. The presence of this fruit, typically associated with growth and nourishment, in such a stark and unforgiving environment, invites contemplation on the impact of human actions on nature, the consequences of waste, and the impermanence of human endeavors.

This piece may evoke in the viewer a reflection on the solitude and the discarded remnants of what was once whole and life-giving, now left to the elements on a lonely road. It is an evocative portrayal of the beauty and sadness found in the quiet decline of natural life, offering a poignant commentary on neglect and the passing of time.

Punctum photography

The punctum — the detail that pierces the viewer and evokes a personal reaction — could be the seeds nestled within the torn flesh of the fruit. These seeds, potential bearers of new life, stand in stark contrast to the

Punctum picture

The punctum of this image, the detail that might stand out to a viewer on a personal level, could be the striking contrast between the vibrant, orange flesh of the melon and the barrenness of its surroundings. This vivid splash of color in an otherwise muted landscape might evoke an

surrounding decay and the unforgiving concrete. For a viewer, this could symbolize hope, resilience, or rebirth, resonating with personal themes of overcoming adversity or the promise of new beginnings from the remnants of the past.

Alternatively, the punctum might be the texture and pattern of the fruit's interior, which, in its exposed state, contrasts dramatically with the rough concrete. This intimate look at the inner workings of something once whole may stir feelings related to the exposure of one's inner self, vulnerability, or a moment when something personal was laid bare, unexpectedly or unintentionally. It is a striking reminder of the fragile and intricate nature of life, even in its most diminished form.

emotional response related to the loss of vitality or the unexpectedness of finding something so full of life in a place so devoid of it.

Alternatively, the punctum might be the subtle track of seeds leading away from the melon, a detail that suggests movement and a narrative of dispersal. This could resonate with a viewer's personal experiences of leaving something behind or the natural instinct to seek growth and expansion, even in the most inhospitable environments. It is a quiet reminder of continuity and the potential for new beginnings that persist despite endings.

Studium haiku	**Studium haiku**
The haiku "Forgotten Harvest" presents a studium that invites reflection on themes of neglect, solitude, and the cycle of life. The first line, "Lost fruit on the ground," immediately paints a scene of abandonment and waste. It evokes a universal understanding of loss — not just The haiku "Forgotten Harvest" invites reflection on themes of neglect,	The haiku "The loneliness of dusk" evokes a studium that engages the reader with themes of solitude, transition, and the subtle interplay of light and landscape. The first line, "Desert road's embrace," introduces a vast and empty space, the desert road acting as a metaphor for life's journey, often solitary and expansive. The notion of the road 'embracing' suggests a merging of the traveler with their environment, where the isolation of the desert landscape becomes a companion rather than a void.

solitude, and the natural cycle through its studium. The first line, "Lost fruit on the ground," paints a vivid image of abandonment and waste, resonating with the viewer's universal understanding of loss—not just of the fruit, but of opportunities and potential. The idea of harvest, typically associated with abundance and the fruits of labor, here is turned on its head to represent what is overlooked and left behind.

"Fell from a journey, alone," the second line, suggests a narrative of untimeliness and solitude. The fruit has fallen before its time, disconnected from the tree that once nurtured it, and now lies alone on the ground. This line may evoke feelings of empathy or introspection about the solitary journey that all beings, not just fruit, must undertake.

The final line, "No hands lift its weight," speaks to the theme of indifference or the lack of intervention in the cycle of nature and life. There's a sense of resignation to fate, a commentary on how society, or individuals, may ignore the fallen and the forgotten. It is a poignant end to the haiku that leaves the reader contemplating the weight of existence

"Half-melon kissed by sunset" paints a vivid image of warmth and fleeting beauty touching an object of decay, a symbol of life that has been halved and exposed. This line could resonate with the universal human experience of finding beauty and meaning in moments of abandonment or change. The sunset's 'kiss' imparts a finality that is both tender and tragic, a moment of closure for the day as well as for the melon's natural lifecycle.

Finally, "Silence spills in gold" captures the essence of dusk — a time when the hustle of the day fades into the contemplative quiet of evening. The silence here is golden, not just in hue but in value, suggesting a precious quality to these moments of stillness. It speaks to the reflective nature of dusk, a time when the world seems to hold its breath, and the richness of solitude can be most acutely felt.

Together, these elements of the haiku weave a narrative that touches on the solitude of the individual experience, the beauty found in transient moments, and the poignant serenity that can be found when day gives way to night. It invites readers to consider their own moments of solitude and the quiet transformations that occur as the world transitions from light to dark.

and the role of compassion in the human experience. The haiku "Forgotten Harvest" offers a concise yet profound meditation on themes that are deeply human and universally relevant, encouraging the reader to reflect on the transient nature of life and the quiet dramas that unfold around us, often unnoticed.	
Punctum haiku The punctum of the haiku "Forgotten Harvest" could be the phrase "Fell from a journey, alone," which may resonate on a deeply personal level with the reader. This line might evoke a specific memory of isolation or a pivotal moment of solitude in the reader's life, perhaps a time when they felt disconnected from their own path or from those around them. The idea of falling alone could metaphorically translate to an experience of personal loss or a time when help seemed absent, triggering a profound emotional response. Alternatively, the punctum might be found in the final line, "No hands lift its weight." This line might unexpectedly strike the reader with its suggestion of abandonment and the indifference of the world. It could remind the reader of a time when they or someone they know was in need	**Punctum haiku** The punctum of the haiku "The loneliness of dusk" could be found in the poignant phrase "Half-melon kissed by sunset." This vivid image may resonate on a deeply personal level, evoking a specific memory or feeling for the reader. It could remind them of a moment when something broken or incomplete was seen in a new light, perhaps suggesting a sense of hope or beauty in the midst of abandonment or loss. Alternatively, for some readers, the punctum may lie in the closing line, "Silence spills in gold." The idea of silence not just descending but 'spilling' in such a rich, vibrant color could strike a chord with individuals who have experienced a profound moment of peace or revelation as daylight fades. This phrase might encapsulate a time when silence was not empty but full of unspoken understanding or contemplation, capturing a moment of golden stillness that remains in the memory long after the sun has set.

| and no assistance was forthcoming, or it might speak to a broader societal issue of neglect that they find particularly moving or troubling. This detail, although small within the larger narrative of the poem, carries the emotional weight of the piece and leaves a lasting impression on the reader. | |

Source: own research.

By comparing the human-created photograph and haiku "Forgotten Harvest" to the AI-generated image and haiku "The Loneliness of Dusk," we encounter two different artistic expressions that center on similar subjects — lost or forgotten remnants in a landscape — yet diverge in their emotional tenor and narrative implications.

The human-created work captures the tangible reality of waste and neglect: the photograph of fallen fruit on the ground and the words "Lost fruit on the ground. Fell from a journey, alone. No hands lift its weight." convey a stark, somber mood. The imagery is direct and unembellished, focusing on the solitary journey of the fruit and its unnoticed, untouched state. The haiku speaks to themes of abandonment and the quiet tragedy of the forgotten, resonating with the viewer's sense of compassion or reflections on society's overlooked details.

In contrast, the AI-generated work "The loneliness of dusk" uses the image of a desert road and a half-melon at sunset to evoke a more contemplative and serene mood. The haiku presents a scene that, while still solitary, finds beauty and a sense of peace in the solitude — the "Desert Road's embrace" is almost comfortable, and the "Half-Melon Kissed by Sunset" suggests a moment of connection between the natural world and the passage of time. The final line, "Silence spills in gold," imbues the scene with a richness and tranquility that contrast with the more melancholic tone of the human-written haiku.

Both the photograph and the AI image utilize the visual image of fruit in a landscape to communicate their messages, but the human artist centers on the narrative of loss and the physical weight of the forgotten, while the AI focuses on the aesthetic interplay between light, color, and the quietude of the setting. Human work may pull at the observer's sense of empathy and the tangible realities of life, whereas AI work offers a more reflective and almost romanticized view of solitude and the passage of time.

Ultimately, human-created work and AI-generated work offer two sides of a coin in terms of thematic exploration. The former may resonate more deeply on a visceral, emotional level, while the latter provides a more detached, aesthetic appreciation of solitude and the natural cycle of day and night. Both are valuable, yet they engage the viewer in different ways due to the inherent differences in their creation and the narratives they present.

Summer

By evaluating the human-created "forgotten harvesting" and the AI-generated "loneliness of dusk," we consider both the emotive impact and artistic conveyance of themes. The human-composed haiku "Forgotten Harvest" offers a raw and unfiltered glimpse into the theme of neglect. The photograph, paired with the evocative text, invites the observer to confront the overlooked and discarded aspects of life. The starkness of the imagery and the poignant choice of words create a compelling narrative that can stir the viewer's empathy and introspection. This work may be valued for its emotional authenticity and the way it captures the viewer's attention, provoking thoughtful reflection on the consequences of our collective inattention.

On the other hand, the AI-generated "Loneliness of Dusk" presents a more stylized and perhaps less emotionally charged reflection on solitude. The image, with its painted quality, and the haiku, with its lyrical depiction of the scene, create a meditative and almost picturesque portrayal of isolation. The aesthetic appeal of the sunset and the poetic language may be appreciated for their beauty and ability to evoke a peaceful contemplation of loneliness and the passing of time. While the AI's work might not engage the viewer's deeper emotions as intensely as the human-created piece, it can be admired for its artistic composition and the serene mood it captures.

In assessing these works, the human-created "Forgotten Harvest" might be seen as having a deeper connection to the complexities of the human experience, resonating with the viewer on a more personal level. The AI-generated "Loneliness of dusk," while possibly lacking in the raw emotional depth, can be appreciated for its visual appeal and the contemplative space it offers.

Each piece serves a different purpose: one confronts and challenges, while the other soothes and contemplates. Human work might be commended for its poignant realism and capacity to provoke a dialogue, while AI work demonstrates the potential of technology to

create art that can simulate and stimulate human emotions, offering its own brand of engagement and reflection.

Chapter 3 Nature's cycle. Forgotten harvest and twilight's silent saga

In "Nature's Cycle: 'Forgotten Harvest' and 'Twilight's Silent Saga", "we explore the between the ephemeral and the eternal as captured through the art of haiku and its corresponding visual forms. This chapter juxtaposes the human-crafted "Forgotten Harvest"—a poignant reflection on the unnoticed and the overlooked in the natural cycle—with the AI-conceived "Twilight's Silent Saga," which evokes the enigmatic transition from day to night.

Using a framework informed by Roland Barthes's semiotic theory, the analyses within this chapter meticulously extract and compare the studium and punctum present in each pairing. The human-authored pieces, rooted in the tangible experience of loss and the passage of time, contrast with the AI's interpretation, which often brings forth a more abstracted, though no less profound, representation of nature's quiet denouement.

This comparative investigation (Tab. 3) not only sheds light on the nuances of creative expression across modalities but also engages with broader questions of how we, as observers, find connection and meaning within the silent sagas told by the natural world.

Table 3. Analysis and interpretation

Author/creator	Author/creator
Agnieszka Szajner	ChatGPT 4.0
	Midjournay
Hats	**Twilight's Silent Saga**
Carefree summer air,	Hats drift in the breeze,
Hats dance in the warm wind's flow,	Island sights, a timeless dance,
Cycladic essence.	Crown of tales untold.

Studium photography	**Studium picture**
The photograph captures a lively and whimsical facade of a rum bar, adorned with an array of hanging hats that suggest a carefree and relaxed atmosphere. The 'studium' of this image lies in its portrayal of leisure and the inviting nature of social spaces that cater to relaxation and enjoyment.	This intriguing image portrays a figure with a striking tower of hats adorned with multiple faces, set against a city skyline. The 'studium' of the image invokes the complex layers of identity and the multifaceted nature of the self within the urban environment.
The assortment of hats hanging from the ceiling conveys a sense of identity and character, hinting at the diverse personalities and stories that may converge in this communal setting. This playful decor element could be seen as a symbol of the unwinding of social norms and the adoption of a more casual, holiday-like persona that such establishments encourage.	The hats, each bearing a different visage, suggest the various roles, personas, and masks that one might assume in the societal context. It reflects on how individuals navigate the social landscape, often adapting or layering different aspects of their identity depending on their surroundings or circumstances.
The warm lighting and the architecture, with its open balcony and welcoming signage, contribute to the image's studium by depicting the bar as a place of gathering and conviviality. The setting sun casts a golden hue over the scene, enhancing the ambiance of warmth and hospitality.	The contrast between the figure's singular, prominent face and the multitude of smaller, less distinct
This image might resonate with viewers as it evokes the universal desire for social connection and the simple	

pleasures of life, such as enjoying a drink with friends in a space designed for shared experiences. It invites contemplation on the role of such establishments in community life and the ways in which they facilitate moments of escape from the everyday routine.

faces in the hats above speaks to the tension between one's private self and public persona. It may also comment on the influence of fashion and societal expectations on individual identity, questioning whether these hats are a form of expression or imposition.

The cityscape in the background serves to place this narrative within the context of urban life, where anonymity and visibility coexist and where the individual is constantly in dialogue with the collective. The image could be interpreted as a statement on the complexity of navigating personal identity in a world that is both interconnected and isolating. This piece might resonate with viewers who contemplate their own place within the larger social fabric, the roles they play, and how they project different facets of themselves to the world. It invites reflection on the nature of individuality and conformity, on the visibility of the self in the urban jungle, and on the layered dimensions of what it means to be seen.

Punctum photography	Punctum picture
The punctum in this photograph, which may strike a personal chord with the viewer, could be the particular way one of the hats is tilted or the shadow it casts on the white wall of the rum bar. This small detail might evoke a memory of a holiday, a special moment, or even a person who is associated with a similar hat. Alternatively, the punctum could be the glow of the lantern amidst the descending dusk. While the hats suggest a narrative of human activity and leisure, the lantern's light offers a solitary point of warmth, perhaps reminding the viewer of a time of solitude or reflection during an otherwise social occasion. It is these singular, perhaps even overlooked, details that can resonate with viewers on an intimate level, connecting the public setting of the photograph to their private recollections and emotions.	In the image, the punctum, or the arresting detail that jumps out to the viewer on a deeply personal level, might be the intense gaze of the central figure. Amidst the sea of hats and faces, the direct and compelling eyes of the woman could evoke a memory or emotion, resonating with the viewer's own experiences of being in a crowd yet feeling singular, or the sensation of maintaining one's identity amidst the multitude. Alternatively, the punctum could be found in the repetition of faces on the hats. This motif might strike a chord with the viewer, reminiscent of a time when they felt lost in the roles they had to play, or it could reflect the feeling of being overwhelmed by the expectations and gazes of others. The myriad expressions contained within one towering structure are a vivid illustration of the complexity of self and society, which may provoke a unique and personal reaction from each observer.

Studium haiku	Studium haiku
The haiku "Hats" captures a studium that resonates with the sensory experiences and cultural essence of the Cycladic islands. "Carefree summer air" immediately sets a scene of relaxation and ease, evoking a universal longing for the laid-back days of summer. This line taps into the collective joy associated with the warmer months, a time for leisure and freedom from the constraints of daily routines. "Hats dance in the warm wind's flow" provides a vivid image of movement, conjuring the gentle rhythms of a seaside breeze. The dancing hats could symbolize the festive spirit and the transient nature of those special summer moments. It is a lively visual that many can relate to, reflecting the playful dance of objects in the wind, often witnessed in coastal settings. "Cycladic essence" anchors the haiku in a specific geographic and cultural context, calling to mind the iconic Greek archipelago known for its picturesque beauty, white-washed buildings, and clear blue skies. This line evokes the unique character of the Cyclades, capturing the essence of the islands in a way that might resonate with those who have visited or long to visit such idyllic destinations. The haiku invites readers to reflect on the feelings and images associated with summer in the islands — the freedom, the vibrant atmosphere, and the distinctive cultural and natural landscapes that define the Cyclades. It encapsulates the experience of a perfect summer's day, where the air itself seems to carry the spirit of carefreeness and celebration.	The haiku "Twilight's Silent Saga" engages the reader through its studium with a rich tapestry of imagery that speaks to themes of urban life, societal roles, and personal longing. "Hats float, city breathes" immediately sets a scene of urban dynamism juxtaposed with a sense of lightness. The floating hats could represent the fleeting and transient nature of social status and the ephemeral qualities of identity within the city's constant movement. "Symbols of status in air" delves deeper into the commentary on societal roles and the visible markers of identity and class. The hats, suspended in the air, suggest a separation from the grounded reality, perhaps alluding to the aspirations to rise above one's current station or the lofty positions some hold within the social hierarchy. "Eyes yearn from below" captures a moment of personal desire, a yearning for connection or recognition within the vastness of city life. It speaks to the universal human experience of feeling

	small or unnoticed amidst the grandeur and spectacle of the urban environment, a solitary observer amongst the crowd.
	Collectively, this haiku invites readers to reflect on the interplay between individual aspirations and societal constructs, the shared but often unspoken desires that are harbored within the hearts of those who navigate the complexities of city living. It offers a window into the moments of solitude that can be found in the midst of communal spaces, inviting a contemplation of the loneliness that dusk can bring in the urban scape.
Punctum haiku	**Punctum haiku**
In the haiku "Hats" the punctum might be the phrase "Hats dance in the warm wind's flow." This evocative image has the potential to trigger a personal, emotional response in the reader, perhaps recalling a memory of a specific hat worn by someone significant or a moment where the wind's playful movement brought about a feeling of spontaneous joy.	In the haiku "Twilight's Silent Saga," the phrase "Eyes yearn from below" could serve as a punctum, striking a personal chord with the reader. This line might resonate deeply, perhaps recalling a moment when they themselves felt the weight of anonymity in a bustling city, or a time when they gazed upwards, seeking connection or aspiring to a dream that seemed just out of reach.
Another reader might find the punctum in the final phrase, "Cycladic essence," which encapsulates not just the physical attributes of the Greek islands but also the intangible qualities that define them. For someone who has experienced the Cyclades, this may bring back a flood of sensory memories — the brightness of the sun, the smell of the sea, the sound of the wind — creating a	

poignant longing or a deep sense of nostalgia for those sun-drenched landscapes.	For another reader, the punctum might be found in the concept of "Hats float," where the levity of the hats contrasts with the gravity of urban existence. The image of hats defying gravity could evoke a memory of a specific occasion, a fleeting feeling of freedom, or escape from the pressures of social status and the fast pace of city life.
It is these individual and unexpected details within the poem that resonate on a personal level, turning a general expression into a unique and intimate experience for each reader.	It is these specific, emotionally charged details within the broader thematic tapestry of the haiku that provide a personal doorway through which the reader may access their own unique experiences and feelings.

Source: own research.

When comparing the human-created photograph and haiku "Hats" with the AI-generated image and haiku "Twilight's Silent Saga," we examined two distinct creative outputs that explored similar themes using different elements and tones.

The human-created "Hats" convey a sense of freedom and lightness, both visually and textually. The photograph likely captures a scene filled with natural light and movement, complementing the haiku that speaks of "Carefree summer air" and "Hats dance in the warm wind's flow." The phrase "Cycladic essence" ties the experience specifically to the idyllic Greek islands, known for their breezy landscapes and unhurried lifestyle. This pairing excels in immersing the viewer in a specific cultural and geographical atmosphere, evoking the warmth, light, and joy characteristic of a Cycladic summer.

On the other hand, the AI "Twilight's Silent Saga" represents an urban environment where hats are symbols floating within a societal context. The image is likely to reflect the verticality and density of city life, creating a contrast with the open skies and natural movement found in "Hats." The haiku speaks of "symbols of status in air" and "eyes yearn from below,"

suggesting a narrative of aspiration and desire amidst the anonymity of city life. It captures a mood that is more reflective, possibly tinged with solitude and the search for identity within the urban landscape.

The human work "Hats" might be celebrated for its ability to encapsulate a moment's fleeting beauty and the tangible feel of a place, inviting the viewer to share in the experience of a specific locale and moment in time. The AI-generated "Twilight's Silent Saga" might be commended for its conceptual exploration of human emotion within the social fabric of the city, even if it might lack the direct sensory engagement of the human-created pair.

In essence, the human-created duet may offer a more sensory, immersive experience rooted in a specific locale, while the AI-generated pair might provide broader commentary on societal structures and individual emotions within the urban setting. Both have value in their ability to convey complex themes and evoke responses from the viewer, albeit through different creative lenses.

Summary

The human creation "Hats" is a tableau vivant of summer in the Cyclades. One can imagine the photographer, camera in hand, capturing the whimsy of hats tossed by the sea breeze against a backdrop of Aegean blue. The haiku spills forth like an ode to this moment, each word a brushstroke painting "Carefree summer air" and "Hats dance in the warm wind's flow," culminating in the "Cycladic essence" that seems to pulse with the rhythmic beat of Greek island life. Here, the artistry lies in the nuanced familiarity with the scene's sensory details — the salty tang of the sea air, the rustle of hats, the warm embrace of the sun — all invoking the soul's longing for freedom and escape to a place where time meanders as leisurely as the shoreline.

In stark contrast, the AI created "Twilight's Silent Saga," where urban sprawl occurs beneath a canopy of twilight. AI, with its algorithms of infinite patterns, weaves an image of solitude amidst the city's grandeur. The haiku it generates speaks of "Hats float, city breathes," a line that hints at the anonymity of urban life, where personal aspirations soar like hats caught in the updraft of skyscrapers. "Symbols of status in air" reflect the glinting lights of the cityscape, a map of dreams scattered across the dusk. "Eyes yearn from below" captures the individual's gaze, adrift in the vast sea of humanity, seeking connection, and seeking solace on the fading day.

Human work is a testament to the visceral bond between the creator and creation, a sensory experience shared and savored. In contrast, the AI-generated piece is a marvel of modernity, a pondering on the collective human experience distilled through the prism of technology. Both stand as beacons of their respective realms — the human art echoing the heartbeat of lived experience, the AI art echoing the possibilities of a new frontier of creation. Each tells a story of longing, of presence, and of the myriad ways we interpret the world around us.

Chapter 4 Urban narratives. Aliko cave and whispers of the urban abyss

The chapter "Urban Narratives: 'Aliko Cave' and 'Whispers of the Urban Abyss'" presents an analytical juxtaposition of layered and complex stories that unfold within urban spaces, as interpreted through human expression and artificial intelligence. It contrasts the human-composed 'Aliko Cave'—a haiku that conveys the weight and history encapsulated in urban architecture—with the AI-produced 'Whispers of the Urban Abyss,' which portrays the hidden narratives and silent echoes that resonate in cityscapes.

Drawing on Roland Barthes's semiotic approach, this chapter unpacks the deeper meanings embedded in the textual and visual representations of urban environments. The analysis seeks to elucidate the studium, the broader societal and cultural context, and the punctum, the strikingly personal resonance, embedded within each paired work. Through this examination, we aim to understand how the concrete vastness of the urban landscape can be both a canvas for collective memory and a conduit for individual stories, whether they are artistically etched by human hands or algorithmically rendered by AI.

Structured analytical tables aid in dissecting these narratives, allowing readers to navigate the convergence of human and digital storytelling within the urban context. This chapter probes the interplay between the permanence of concrete and the ephemerality of the stories it bears, offering a multifaceted perspective on the interpretation of urban space as both a historical artifact and a living narrative in the age of artificial intelligence.

Table 4. Analysis and interpretation

Author/creator	Author/creator
Aleksander Cywiński	ChatGPT 4.0 Midjournay

Aliko cave Tons of concrete Made with paintings/ I walk between **Jaskinia Aliko** Tony betonu Malowidłami zrobione/ Chodzę pomiędzy	**Whispers of the Urban Abyss** Concrete canvas speaks, Sun pierces the artful gloom— Silent tales emerge.
Studium photography The photograph presents an urban passageway marked by the raw, unfiltered expression of graffiti. The 'studium' in this context explores the dialogue between public space and personal expression, the passage from darkness into light, and the intersection of urban decay and creativity. The graffiti adorning the walls provides a visual cacophony of colors and forms, each	**Studium photography** The image presents a captivating scene of an underground passageway adorned with an extensive array of graffiti. The 'studium' in this context delves into the interplay of urban art as a form of rebellion and expression, the transformative power of such artwork on neglected spaces, and the juxtaposition of light and shadow in revealing the often hidden vibrancy of street art.

tag and image a testament to an individual's need to leave a mark, to assert presence in the often anonymous urban landscape. The artistry and vandalism of graffiti exist in tension, reflecting a spectrum of societal voices ranging from the disenfranchised to the rebellious.

The tunnel itself, with its arched openings, channels the viewer's gaze from the shadowed interior to the bright exit. This transition from the dim, art-filled corridor to the illuminated end symbolizes hope, change, and the journey towards understanding or escape. It invites contemplation of the path from obscurity to clarity, from the figurative shadows of society to the light of recognition and perhaps redemption.

The image may resonate with viewers by evoking the urban experience's gritty reality, the impermanence of public art, and the ever-present potential for transformation. It invites reflection on the nature of urban spaces as canvases for expression and the dualities that define city life – darkness and light, silence and voice, decay and beauty.

The walls and surfaces are engulfed in a chaotic symphony of graffiti, a visual manifestation of voices clamoring to be heard and recognized. This graffiti does not simply decorate; it claims the space, each layer a testament to a moment of artistic defiance or personal expression. The colors are bold, the subjects varied, and together they create a complex visual narrative that speaks to the multifaceted nature of urban identity and culture.

Strikingly, a shaft of light descends from an aperture above, serving as a natural spotlight that breathes life into the colors and shapes. It not only breaks the gloom of the passageway but also metaphorically connects the subterranean art scene with the outside world. The light and shadow interact dynamically, creating a sense of depth and dimension that makes the art feel alive and in motion.

The image may resonate with viewers by prompting them to reflect on the ways in which art can transform and impact our perception of space. It also invites a consideration of how places forgotten by time can be revitalized through human creativity, and how light—both literal and metaphorical—can uncover beauty in places of darkness and neglect.

Punctum photography

The punctum in this photograph might be the glimpse of bright light at the tunnel's end, drawing the viewer's eye through the graffiti-covered passage towards the promise of openness and clarity. This stark

Punctum photography

The punctum in this photograph could be the singular beam of light that cuts through the darkness and illuminates the graffiti-clad walls of the tunnel. This stark shaft of light may resonate on a personal level with viewers,

contrast between the shadowy corridor and the illuminated exit could resonate with viewers on a personal level, perhaps symbolizing hope, a journey's end, or an escape into a brighter future.

Alternatively, for some viewers, the punctum could be a specific piece of graffiti — a unique tag, symbol, or character that stands out from the urban canvas. This detail might evoke a memory or a feeling of discovery, a connection to the rebellious spirit of street art, or a personal recollection of a time and place where graffiti spoke to them in a way that words could not.

It is these individual elements within the broader context of the image that have the potential to elicit an emotional response, making the experience of viewing the photograph a deeply personal interaction with the artwork.

symbolizing insight, discovery, or the uncovering of truth in a place shrouded in obscurity. It could evoke a memory of a time when clarity emerged from a moment of confusion or darkness, or it could resonate as a metaphor for hope and understanding piercing through a chaotic backdrop.

Alternatively, a specific piece of graffiti, perhaps a character or symbol that stands out from the rest, could act as the punctum for someone else. It might remind them of a specific place or time, or resonate as an emblem of personal significance, igniting a feeling of connection to the anonymous artist's statement or evoking an emotional response tied to their individual experiences. It is these distinct and singular reactions that make the concept of punctum deeply personal and subjective.

Studium haiku

The haiku "Aliko cave" presents a compelling studium that contemplates the juxtaposition of industrial strength with artistic expression, and the human experience of navigating such spaces.

"Tons of concrete" immediately sets a foundation of solidity and permanence. The weightiness of the concrete speaks to the enduring, sometimes oppressive, nature of man-made structures. This line evokes the sheer scale of human engineering, the

Studium haiku

The haiku "Whispers of the Urban Abyss" captures a studium that weaves together the essence of urban artistry and the interplay of light within the often-overlooked corners of the cityscape.

"Concrete canvas speaks," the first line, sets the stage for a narrative where the city itself becomes an active participant in storytelling. The concrete, typically a symbol of the urban sprawl's stark and unforgiving nature, is transformed into a 'canvas' — a term that

physicality of the materials that construct our urban environments.

"Made with paintings" introduces a contrasting element of creativity and color. The phrase suggests that the concrete has been transformed, claimed by artists who imbue life and story into its cold mass. This line speaks to the power of art to redefine and claim spaces, turning them into something more than their original, utilitarian intent.

"I walk between" concludes the haiku with a personal action, placing the observer within this space of contrast. It speaks to the act of moving through a world where the industrial and the artistic intersect, where the permanence of structures meets the ephemeral nature of human expression. This line invites the reader to reflect on their own passage through such spaces, to consider their place within the continuum of the built environment and the living narratives painted upon it.

Collectively, the haiku offers a narrative that explores the human relationship with urban landscapes, the tension between construction and creativity, and the role of the individual in perceiving and interpreting these intertwined worlds.

denotes creativity, potential, and expression. The choice of the verb 'speaks' personifies the urban environment, suggesting that these walls have their own stories to tell, whispered through the medium of graffiti and street art.

"Sun pierces the artful gloom—" introduces a dynamic contrast between light and shadow, a common theme in urban settings where the brightness of natural light is often fragmented by the architecture. The sun's rays penetrating the darkness not only illuminate the physical space but also metaphorically highlight the art that adorns it, bringing clarity and attention to what might otherwise remain unseen.

"Silent tales emerge" concludes the haiku with an evocation of the narratives that become visible in this interplay of light and art. These 'tales' are 'silent,' perhaps unrecognized or unheard in the cacophony of city life, yet they 'emerge' as the sunlight reveals them, suggesting that there is always more to discover if one is willing to look.

The haiku invites the reader to contemplate the urban landscape as a place of hidden depth, where the expression is etched onto the very fabric of the city, and moments of revelation await as the natural world interacts with the constructed one. It is a meditation on the ways in which the urban environment communicates with those who traverse it, and the quiet stories that are there for the finding.

Punctum haiku	Punctum haiku
In the haiku "Aliko cave," the punctum that might strike a personal chord with the reader could be the line "Made with paintings." This fragment suggests a transformation of cold, impersonal concrete into something infused with human touch and creativity. It is a line that could evoke a particular memory of encountering street art that turned an ordinary walk into an unexpected journey through an artist's imagination. Alternatively, the punctum for another reader might be found in the concluding words "I walk between." This phrase can resonate on an intimate level, perhaps reminding the reader of their own moments of transition or of walking through spaces that felt altered by the presence of art. It speaks to the personal experience of moving through a world where human expression confronts and softens industrial starkness, creating corridors of color and meaning in the most mundane places.	The punctum in the haiku "Whispers of the Urban Abyss" could be the phrase "Sun pierces the artful gloom." This line brings a vivid image to the forefront, where the sun's rays cut through the darkness of an urban landscape, highlighting hidden artworks. For the reader, this moment of illumination might stand out as a powerful metaphor for understanding, insight, or revelation in their personal life. It can evoke a memory of a time when something previously obscured became clear, or when a moment of beauty was revealed in an unexpected place. Alternatively, the final line "Silent tales emerge" might act as the punctum for another reader. It implies that within the quietness of the urban environment, there's a wealth of stories waiting to be discovered. This could resonate with someone who has experienced a profound connection to a place's history or felt the resonance of untold narratives within a city's walls. Each reader brings their own experiences and emotions to the haiku, and it is these individual reactions to specific phrases that make the concept of punctum so deeply personal.

Source: own research.

The human-created "Aliko cave" photograph and haiku depict an interaction with a concrete structure adorned with paintings, suggesting a passage not only through a physical space but also through an environment rich in artistic expression. The haiku "I walk between" conveys a sense of being amidst or in dialogue with these painted narratives, adding a layer of personal journey to the experience of the space.

In contrast, the AI-generated "Whispers of the Urban Abyss" presents an image that likely captures a similar interplay of art and structure but with a focus on the emergence of stories within the context of light and shadow. The haiku accompanying this image suggests an act of revelation—silent tales that become perceptible when illuminated—emphasizing the transformative power of light in interpreting and experiencing the urban landscape.

When comparing the two, "Aliko Cave" centers around the human experience of the art-filled space, with a haiku that places the reader within the concrete's confines, walking and interacting with the murals. It evokes a sense of immediacy and immersion, where the boundary between the observer and the observed is blurred, allowing for personal and introspective engagement with the art.

On the other hand, "Whispers of the Urban Abyss" seems to frame the experience as one of discovery, where the stories told by the urban environment are unveiled by the interplay of sunlight and the artist's work. The AI-generated haiku offers a perspective that is both detached and revelatory, portraying the space as a place where silent stories await the viewer's attention to come to life.

Both perspectives provide valuable insights into the relationship between people and the spaces they occupy and alter. Human-produced work may resonate more with those who value the tactile, raw experience of urban exploration. In contrast, the creation of AI might appeal to those who see the city as a canvas that speaks to the passerby, revealing its narratives through the changing light and the observer's shifting perspective.

Summary

In evaluating the human-made "Aliko cave" photograph and haiku against the AI-generated "Whispers of the Urban Abyss," one must consider the depth of engagement, the richness of narrative, and the emotional resonance each set elicits.

The juxtaposition of the "Aliko cave" against the "Whispers of the Urban Abyss" presents an intriguing comparative study at the intersection of technology, human experience, and artistic expression in interpreting urban spaces.

The "Aliko cave" collection, comprising a photograph and an accompanying haiku, stands as a primary source of human interaction with urban art. The photograph, presumed to capture the tactile reality of a graffiti-adorned space, reflects the spontaneous and organic nature of street art. Its value lies in its documentation of a moment in time, an authentic record that carries with it the observer's subjective narrative and emotional response. The haiku

complements this visual record, extending the narrative by emphasizing the experiential aspect of walking amidst such a vibrant display of public expression. This synergy of image and text in human-created work facilitates multisensory engagement, allowing for a nuanced interpretation that underscores the importance of presence and personal journeys within the space.

Conversely, "Whispers of the Urban Abyss," an AI-synthesized image and haiku, offers a constructed reality that emerges from an algorithmic interpretation of similar urban environments. While lacking the direct sensory engagement of human-produced work, AI creation serves as an interpretive model that reconstructs the urban environment from a series of data inputs. The narrative here is one of the emergent stories suggested by the haiku's allusion to a 'concrete canvas' and the revelation of 'silent tales.' AI work might not convey the same depth of personal experience, but it showcases the potential of machine learning to create and narrate visual stories, providing an alternative lens through which urban spaces can be perceived and understood.

Comparative interpretation

From a scholarly perspective, human-made work is a testament to the subjective nature of artistic experience and the irreplaceable value of personal interaction with space. It represents an anthropocentric approach to art interpretation, where the lived experience of the individual is central to the understanding of the artwork. In contrast, the AI-generated piece exemplifies the objectivity and replicability that technology brings to the study of art. This raises questions about the nature of creativity and challenges the traditional paradigms of artistic value and authenticity.

The evaluation of these works on a scientific basis necessitates an acknowledgement of the distinct methodologies at play. Human work is grounded in phenomenology, emphasizing the consciousness and experience of the individual. The AI work, however, is rooted in a poststructuralist perspective, where the generated output challenges the notion of authorship and the originality of creation.

Both the human-made "Aliko cave" and the AI-generated "Whispers of the Urban Abyss" contribute valuable insights to the discourse on art and technology. The former anchors the discussion in the realm of human experience, while the latter expands the conversation to include the capabilities and implications of artificial intelligence in artistic creation. Each work, with its respective methodology and output, provides a unique vantage point from which to explore and interpret the layered narratives of urban artistry.

Chapter 5 Introspective paths. *Chronos' algorithm*

We enter a world where introspection and technology intertwine, creating a multidimensional narrative about time and its perception. We start with a study of photographs from the ruins of the Aliko Hotel on the island of Naxos, which became a space for dialogue between the past and the present. Graffiti art, infiltrating the abandoned structure, creates a narrative about transience and renewal while also serving as a metaphor for the constant flow of time. This interaction between decay and vitality sheds light on the cyclical nature of life and the inevitable variability that characterizes human experience.

We introduce the concept of the "Chronos algorithm," which considers time not only as a linear dimension but also as a complex series of data that can be interpreted and transformed through technology. The use of machine learning to analyse and interpret temporal data in the context of the "Naxos mood" indicates an attempt to understand and predict patterns of human emotions and experiences.
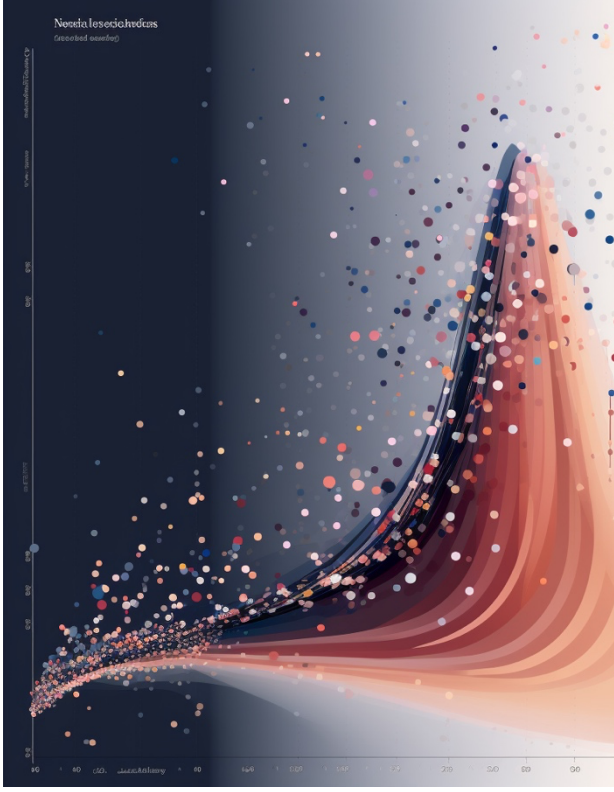
The haikus "Chronos' Algorithm" and "Temporal Elegance" artistically reflect these concepts, merging mythology, science, and the emotional dimension of human existence. "Naxian mood. Returning" in the haiku is not only a reference to the cyclical nature of time but also emphasizes the human dimension of experiencing and interpreting time. In this way, these short poetic forms become a bridge connecting the abstract concept of time with concrete human experience.

This chapter invites the reader to reflect on how technology and art can together explore and interpret the complexity of time. In an educational and academic context, these considerations can lead to new teaching and research methods that incorporate both technological and humanistic approaches to understanding time and the human experience.

By combining the study of photography, algorithmic analysis, and poetry, this chapter encourages an interdisciplinary conversation about how we perceive and interpret time in our lives.

Table 5. Analysis and interpretation

Author/creator Jakub Petri	Author/creator ChatGPT 4.0 Midjournay
Chronos' Algorithm Split data in time series through machine learning – The Naxian mood. Returning	**Temporal Elegance** Gentle dots cascade, Time's fabric, finely arrayed/ Night meets dawn's soft shade
Studium photography The photograph taken in the ruins of the Aliko Hotel on the island of Naxos encapsulates a profound narrative within its frame. The visual tension between the abandoned human construction and the	**Studium photography** The image presents a visual representation of data, possibly depicting the ebb and flow of certain metrics over time. The dense clustering of dots at the curve's base suggests a common origin or a converging trend, while the scatter

defiant, vibrant graffiti suggests a dialogue between the past and present. The light streaming through the window bathes the artwork in a natural spotlight, highlighting the transformative power of art in reclaiming and reinterpreting spaces once forgotten. The interplay of shadows, textures, and colors in this image speaks to the complex relationship between decay and renewal, offering a contemplation on the cycles of abandonment and revitalization.	of points as they ascend and fan out could represent variability or divergence in the dataset. The gradient of colors from dark to light may symbolize the intensity or frequency of the data, with darker areas indicating higher concentrations. This visual could serve as an interpretive tool for understanding complex datasets in fields such as economics, meteorology, or social sciences.
Punctum photography In the photograph from the Aliko Hotel ruins, the punctum—that arresting detail which catches the viewer's eye and evokes a personal reaction—might be the beam of light that cuts through the darkness. It draws the eye to the graffiti, setting the artwork ablaze with vitality against the backdrop of decay. This striking contrast between light and shadow, life and dereliction, becomes a personal beacon of reflection for the viewer, perhaps evoking thoughts on the transient nature of all human endeavors.	**Punctum photography** The punctum of the visual "Chronos' Algorithm" may be the point where the dense cluster of data points begins to disperse. This particular spot in the image, where the clear pattern of accumulation breaks into variability, can evoke a personal response or curiosity. It might symbolize a moment of change or an outlier in the data, drawing the viewer's attention and prompting questions about the story behind this shift.
Studium haiku The haiku "Chronos' Algorithm" weaves together the realms of Greek mythology, modern data science, and cultural essence. "Chronos," the personification of time, hints at an eternal, flowing dimension, while the mention of "split data in time	**Studium haiku** In "Temporal Elegance," the haiku speaks to the subtle yet profound transitions of time, portrayed through the metaphor of cascading dots—a likely representation of moments or events. The 'fabric of time' suggests a delicate, intricate structure to our experience of time's

series" brings us into the precise, calculated world of machine learning. This blend of the mythological and technological sets a unique backdrop for the line "The Naxian mood. Returning," which injects a human, emotional element. This line acts as a bridge, drawing a connection between the abstract, often impersonal nature of data and the tangible, lived experiences and collective emotions of a place like Naxos. This juxtaposition highlights the intersection of technology with human experience and cultural identity, offering a rich field for interpretation in both technological and humanistic terms.The haiku thus presents a layered narrative, juxtaposing and intertwining the systematic with the sentient, the algorithmic with the affective.

passage, likened to a finely woven canvas of existence. The final line, "Night meets dawn's soft shade," evokes the gentle shift from darkness to light, symbolizing the perpetual dance between day and night, an eternal cycle of endings and beginnings, each moment as finely arrayed as the last. This haiku invites reflection on the elegance found in these temporal shifts, a natural rhythm that is both modest and majestic.

Punctum haiku

In the haiku "Chronos' Algorithm," the punctum, or the element that resonates on a deeply personal level, could be the phrase "The Naxian mood. Returning." This line could evoke a sense of timelessness or cyclical return, reflective of the ancient and enduring spirit of Naxos. Amidst the technical references to time series and machine learning, this line introduces a distinct emotional and cultural dimension. It might evoke a sense of nostalgia or a personal connection to Naxos, perhaps recalling memories of the island or a

Punctum haiku

The punctum of the haiku "Temporal Elegance" may be found in the evocative phrase "dawn's soft shade." This expression personalizes the poem, resonating with the reader's intimate experiences of the tranquil moments at dawn, invoking the sensory memory of witnessing the first gentle light after the darkness, and symbolizing new beginnings or personal awakenings.

| broader reflection and metaphorical interpretation of how technology intersects with and returns to human experiences and emotions. | |

Source: own research.

The human-crafted "Chronos' Algorithm" haiku and the accompanying photograph create a vivid narrative intertwining the precision of data science with the experiential essence of Naxos. In contrast, the AI-generated "Temporal Elegance" haiku and its visual representation offer an abstract, patterned perspective on the concept of time, articulating the transition from night to dawn through the metaphor of cascading dots. Both sets explore the theme of time but from markedly different angles: the human works ground the abstract in the tangible, while the AI provides a more detached, pattern-oriented viewpoint.

Summary

In summary, the creative process under discussion embodies a journey from tangible art to digital creation. It began with physical graffiti art on the ruins of the Aliko hotel on Naxos Island, then transitioned into a digital realm through the intermediary of a haiku poem, and culminated in an image generated by artificial intelligence. This sequence of transformations demonstrates the fluid nature of art, highlighting the interplay between physical experience and digital reinterpretation.

Through the theoretical lens of Roland Barthes, this process can be dissected into the concepts of "work" and "text." The graffiti is the "work," a substantial piece of creation, while the AI-generated image and the haiku poem represent the "text," encapsulating the interpretive journey between the observer and the ascribed meanings. The progression from a "readerly" to a "writerly" text is evident, as the audience's role shifts from passive recipients of the original artwork to active participants in generating meaning from the AI image.

The haiku, "Temporal Elegance," poetically encapsulates this entire process, touching on themes of temporality and interpretation. This reflects the ephemeral nature of physical art and the enduring nature of data, suggesting a continuity between the decay of material forms and the persistence of digital ones.

The implications of this process are significant for understanding artistic creation and consumption in the digital age. The collaboration between humans and AI in this art-making process questions traditional notions of authorship and authenticity, indicating a new paradigm in which AI tools extend human creativity.

This evolution from concrete to conceptual offers a rich field for exploration within media pedagogy. It demonstrates how media evolves and influences learning, communication, and creative expression, underlining the transformative power of technology in the arts.

The differences lie in the engagement level: human-generated works tend to evoke a direct emotional response, grounding the abstract in tangible experiences. In contrast, AI interpretations provide a macroscopic view, focusing on patterns and sequences. Both, however, share a thematic focus on time and transition, demonstrating different but complementary ways of conceptualizing and visualizing change.

Chapter 6 Transient spaces. *Escape and nomadic drizzle*

The chapter "Transient Spaces: 'Escape' and 'Nomadic Drizzle'" ventures into an examination of the impermanence and fluidity of spaces as they are experienced and imagined through the media of haiku poetry and visual art. Here, the concept of escape, as conveyed in the human-authored haiku 'Escape', is juxtaposed with the AI-generated 'Nomadic Drizzle,' each accompanied by their respective images to explore the theme of transience in both the physical and metaphysical realms.

Guided by the semiotic theories of Roland Barthes, the chapter meticulously analyses (Tab. 7) the studium and punctum present in each work. 'Escape' resonates with the human desire to break free from the constraints of the familiar, while 'Nomadic Drizzle' reflects on the continuous journey and the subtle traces left behind. This dual exploration within transient spaces not only contrasts the visceral human need for liberation with the AI's interpretation of ceaseless movement but also considers how each form of consciousness—organic or synthetic—interprets the notion of temporality.

Through analytical Table 7, this chapter provides a structured method for dissecting the nuances of paired works, highlighting the ways in which the transient nature of our experiences and surroundings is captured and expressed by different creators. 'Transient Spaces' seeks to deepen the discourse on the ephemeral qualities of existence as articulated by the interplay of words and imagery, thus broadening the understanding of the temporal aspects that define our interaction with the world.

Table 6. Analysis and interpretation

Author/creator	Author/creator
Michał Parchimowicz	ChatGPT 4.0 Midjournay

Escape Snail on a can Two houses next to each other/ They are waiting for rain **Ucieczka** Slimak na puszce Dwa domy obok siebie/ Czekają na deszcz	**Nomadic Drizzle** Rain's gentle drumming, Snails carry homes, soft trails blend— Quiet streets roam
Studium photography This image features a unique, human-made snail abode created from a repurposed can, set amidst a field of greenery. The 'studium' of this photograph examines the interplay between human ingenuity and the natural environment, as well as the themes of	**Studium photography** The whimsical image of snail shells transformed into houses, with actual snails perched atop them in the rain, evokes a studium that touches on themes of home, adaptation, and whimsy. The snails, creatures known for carrying their homes on their backs, are here depicted with

recycling, habitat, and the unexpected whimsy found in everyday life.

The can, likely once discarded as waste, has been transformed into a vertical garden of sorts, colonized by a multitude of snails. This unexpected use of an artificial object within a natural setting not only provides a commentary on environmental sustainability but also reflects on the adaptive nature of life forms. The snails, typically slow-moving and vulnerable, are given a space that elevates them, both literally and figuratively, offering protection and community.

The backdrop of the field, with its varied textures and shades of green, contrasts with the man-made structure of the can, highlighting the contrast between the natural world and human intervention. This setting might lead viewers to contemplate the ways in which our everyday actions and objects can become part of the larger ecological narrative.

The image may resonate with viewers by inspiring thoughts about the ingenuity of both human and nonhuman life to adapt and make use of available resources. It invites reflection on the repurposing of materials, the creation of unexpected beauty, and the small ecosystems that can thrive in the corners of our world that we often overlook.

houses instead of shells, blending the natural and the man-made in a charmingly surreal manner. This artistic choice speaks to the adaptability and resilience of life, with the snails appearing comfortable and at ease in their unique dwellings, even as the rain pours down around them.

The rain-soaked setting, with its reflective surfaces and the backdrop of blurred city buildings, creates a mood of solitude and contemplation. It suggests a narrative where despite the larger, possibly overwhelming world, there can be a place of comfort and individuality. The snails seem unfazed by their surroundings, implying a sense of contentment and security within their personalized shelters.

This piece might resonate with viewers as it plays with the idea of finding or creating one's own place in the world, no matter how unconventional it may be. It invites reflection on the nature of home and the sanctuary it represents, as well as the human desire to personalize and claim our spaces, creating an oasis of individuality in the vastness of the urban environment.

Punctum photography The punctum in this photograph could be the cluster of snails gathered on the discarded can, particularly how they seem to have formed a community around a human-made object in their natural environment. This unexpected gathering might resonate with a viewer on a personal level, perhaps evoking thoughts about the resilience of nature or memories of a time when they discovered life flourishing in an unexpected place. Alternatively, for some viewers, the punctum might be the single snail positioned higher on the can than the others, almost reaching the top. This could symbolize perseverance and the drive to rise above, eliciting a personal emotional response related to ambition, growth, or the journey toward a goal. It is these individual details that can transform a general scene into a deeply personal narrative for the viewer.	**Punctum photography** In this image, the punctum could be the delicate, almost contemplative pose of the snail perched on top of the whimsically transformed snail-house. This particular detail might resonate with viewers as a poignant reminder of the comfort one finds in their own home, no matter where it is or what form it takes. Alternatively, the punctum might lie in the subtle, reflective quality of the wet pavement, where the snail-houses and their urban backdrop are softly mirrored. This reflection could evoke a personal memory or emotion related to introspection or duality — the idea that there is more to one's environment and oneself than meets the eye, a depth that can only be seen upon closer examination.
Studium haiku The haiku "Escape" offers a rich studium that draws on themes of refuge, anticipation, and the interplay between nature and the man-made world. "Snail on a can" immediately presents an image of a creature often associated with slow movement and the carrying of its home. The juxtaposition of the organic, living snail with the artificial, possibly	**Studium haiku** The haiku "Nomadic Drizzle" captures a studium that invites reflection on the rhythms of nature and the journey of life, as well as the tranquil beauty found in moments of gentle rainfall. "Rain's gentle drumming" sets the auditory scene with a peaceful, rhythmic quality that raindrops create as they touch the ground. This sound is often associated with calmness and

discarded object of the can, speaks to the resilience of nature and its ability to adapt and find sanctuary in human environments. "Two houses next to each other" further develops this idea of closeness and community, suggesting a sense of solidarity or shared experience. The image of the houses side by side may evoke feelings of neighborliness and the comfort found in proximity and companionship.

"They are waiting for rain" completes the haiku with a sense of expectation. Rain, often a symbol of renewal and change, is anticipated by both the snail and the houses, tying them together in a communal moment of waiting. This line could resonate with the universal human experience of awaiting something transformative, the hopeful pause before an event that promises to alter the current state of things.

Collectively, this haiku invites contemplation on the themes of seeking shelter, the bond between living beings and their environments, and the commonalities that exist between even the most disparate entities. It captures a moment suspended in time, where the potential for change is imminent, and all beings, animate and inanimate, await the nourishing promise of rain.

serenity, evoking a universal response of relaxation and contemplation.

"Snails carry homes, soft trails blend" introduces the image of snails, which are emblematic of self-sufficiency and the ability to find home wherever they go. The blending trails speak to the transient yet persistent nature of life's journey, marking the world quietly as they move along. This line resonates with the human experience of travel and the marks we leave as we navigate through our environments.

"Quiet streets roam" personifies the streets, giving them agency as if they are wandering just like the snails. This inversion of expectation — where the streets, not the creatures, are roaming — adds a layer of whimsy and invites the reader to see the world from a different perspective. It suggests a world where the boundaries between the animate and inanimate blur, and where silence and movement coexist.

Together, the elements of this haiku form a narrative that reflects on the gentle, unassuming presence of nature in our lives and the quiet dignity of a nomadic existence. It offers a moment of introspection, a chance to appreciate the soft whispers of life that are often drowned out by its louder facets.

Punctum haiku	Punctum haiku
The punctum in the haiku "Escape" could be the phrase "Snail on a can." This unusual image might pierce the reader's individual consciousness, reminding them of an instance where they found life in an unexpected place. It could evoke a personal memory of encountering a small creature in a surprising setting, or it might resonate as a metaphor for adaptation and finding one's place in the world, regardless of the circumstances. Alternatively, for another reader, the punctum might be found in the closing line, "They are waiting for rain." This anticipation of rain could strike a chord with someone who has experienced a period of waiting or longing for change. It might also provoke a strong emotional or sensory memory of the smell of rain or the feeling of release and relief that comes with it, connecting the ecological cycle depicted in the haiku to a deeply personal experience.	In the haiku "Nomadic Drizzle," the punctum may be found in the phrase "Rain's gentle drumming." This sensory detail has the potential to resonate with the reader on an individual level, evoking a memory of personal significance where the sound of rain provided a backdrop to a moment of introspection, peace, or an emotional turning point. Alternatively, for another reader, the punctum might lie in "soft trails blend." This imagery could invoke a feeling of connection to the earth and the passage of time, reminding the reader of instances where they have noticed the subtle signs of nature's movements, perhaps leading to reflections on their own path and the traces they leave behind in the journey of life. It is these specific details that touch upon the personal and the profound, allowing the haiku to transcend its form and deeply affect the reader.

Source: own research.

By comparing the human-crafted "Escape" with its image of a snail atop a can and the accompanying haiku to the AI-generated "Nomadic Drizzle" with its own haiku, we uncover two distinct narratives that both draw upon the serenity and symbolism of rain yet diverge in their portrayal of movement and stillness. The photograph, assuming that it captures the natural lighting and texture of the snails' environment, might hold a certain veracity that can only be rendered through human experience and the eye for detail. The haiku complements this visual by succinctly encapsulating the moment's essence, forging a connection with the viewer that is steeped in shared experience and a collective understanding of nature's rhythms.

The human-created work centers on a stationary moment—a snail on a can, immobile homes side by side, awaiting the nourishment of rain. There's a palpable sense of anticipation and stasis within "Escape." The photograph likely captures a tangible stillness, reflecting the haiku's theme of waiting—a snapshot of potential before the rainfalls. The image and words together may evoke a meditative state, inviting the observer to consider the quiet before a transformation, the stillness of life preparing for the renewing rains.

The AI's "Nomadic Drizzle," on the other hand, infuses the idea of movement into the scene. Here, the snails are not static but are carrying their homes, leaving trails that blend into the streets — streets that, in a poetic twist, roam themselves. This haiku suggests a gentle dynamism, a world alive with the soft drumming of rain and the quiet, nomadic journey of life even amid tranquility. The image that accompanies it presumably adds a layer of depth, visualizing the softness and fluidity described in the poem. The AI-generated pieces, while perhaps lacking in the raw emotional connection of human-made art, offer a reflection on the potential for technology to not only imitate but also innovate within the realm of artistic creation, providing a window into the expanding relationship between humans and artificial intelligence in the field of art.

While "Escape" presents a scene of quietude and potential, "Nomadic Drizzle" offers a narrative of subtle motion and progress. Both explore the beauty of life's simple, often overlooked, moments but from different perspectives. Human work may resonate with the stillness and depth of a single, contemplative moment, while AI work speaks to the continuous, understated movement inherent in life's journey—even in the quietest of times.
In essence, both pairs — the human-made and the AI-generated — offer a rich tableau for the senses and the soul, each telling a story of life's quiet interludes, one poised in silent expectancy, the other in soft, ongoing passage.

Summary

Thus, both sets of creations serve as valuable entities within the art world. In the scholarly discourse of artistic evaluation, one must consider the distinct methodologies and underlying philosophies that differentiate human creativity from artificial intelligence. The comparison of "Escape," a photograph and haiku created by a human, with "Nomadic Drizzle," a visual and poetic composition synthesized by AI, serves as a compelling case study.

An "escape" is the embodiment of a humanistic approach to art. The creator captures an image, framing the world through a lens of personal experience and reflection. The snail,

perched atop a can, is both out of place and in perfect harmony with its environment, illustrating the duality of existence. The accompanying haiku, with its simple language, encapsulates a profound moment before the rain, a universal pause that resonates with the anticipation felt by all living beings. This work is steeped in the sensory and emotive qualities that are the hallmark of human experience—the stillness of the scene, the texture of the snail's shell, and the implicit tension before the skies open. It invites the observer to contemplate, to breathe in the stillness and to connect with the visceral reality of the moment.

In juxtaposition, "Nomadic Drizzle" represents the zenith of AI's creative capacity. The algorithm, informed by vast datasets, constructs an image where snails are adorned with quiet streets. The haiku, generated by the same artificial processes, speaks of rain's gentle drumming and the seamless blend of life's quiet roamings. Here, AI demonstrates a sophisticated ability to mimic human creativity, producing a narrative of life's continuity against the backdrop of a soft drizzle. The AI does not feel the rain, nor does it understand the weight of solitude it describes, yet it crafts a narrative that mirrors human perception of the world. The result is an artful construction, a simulacrum of human thought and feeling, impressive in its technical execution and its conceptual grasp of the themes it seeks to portray.

In a scholarly narrative, the human-made "escape" might be lauded for its authentic reflection of the human condition, the subtle interplay of anticipation and the tactile reality that can only be conveyed through lived experience. Conversely, the AI-generated "Nomadic Drizzle" might be examined for its contribution to the discourse on the capabilities of artificial intelligence in creative domains — a demonstration of how closely algorithms can come to replicating the nuances of human expression.

Both pieces stand as testaments to their creators — one, a mirror to the soul of its human artist; the other, a window into the potential of our technological counterparts. Each serves a purpose in the academic exploration of art: "Escape" as an anchor to the emotional depths of creativity and "Nomadic Drizzle" as a beacon of progress in the journey of artificial intelligence. AI creations stand as a testament to the evolving capabilities of machine learning and the new frontier it represents in the creative arts, offering a different but equally intriguing form of engagement.

Chapter 7 Nature's repose. *Fox on the stone and repose in the glen*

In "Nature's Repose: 'Fox on the Stone' and 'Repose in the Glen',", the focus shifts to the contemplative stillness and subtle interactions within natural settings, as captured by human and AI interpretations. The chapter juxtaposes the human-authored haiku 'Fox on the Stone,' which offers a snapshot of serene wildlife, against the AI-generated 'Repose in the Glen,' a poetic rendering that contemplates a tranquil coalescence with nature.

Grounded in the semiotic theory of Roland Barthes, this chapter examines the studium—reflecting the culturally and contextually informed interpretation—and the punctum—the personal, emotional piercing—manifested in both the poems and their visual complements. The analysis navigates through the contrasting expressions of rest and repose found in the artworks, exploring how each creator encapsulates the intimate moments of harmony between fauna and their environment.

This chapter's structured analysis in Table 8 provides a scaffold for the intricate comparison of these works, illuminating the distinct yet harmonious ways in which the essence of nature's repose is artistically conveyed. "Nature's Repose" probes the quietude of natural habitats, engaging with the broader implications of how tranquility and the presence of life are artistically rendered and perceived across different creative modalities and intelligences.

Table 7. Analysis and interpretation

Author/creator	Author/creator
Aneta Witosz	ChatGPT 4.0 Midjournay
Fox on the stone On a stone, a fox rests— In the shadow of the stairs Sweetly sleeps at ease **Rudy na kamieniu** (Na kamieniu lis/	**Repose in the Glen** Amber fox reclines, Stone throne amidst the ivy— Dappled light whispers.

W cieniu schodów spokój ma Słodko sobie śpi)	
Studium photography The photograph presents a stone, painted with the likeness of a curled up fox, resting within a sheltered nook of a building. The 'studium' in this context involves the intersection of artistic expression and the natural world, and the ability of art to transform ordinary objects into evocative pieces. The painting on the stone transforms what would otherwise be an unnoticed rock into a focal point of artistic intrigue. The fox, an animal often associated with cunning and	Studium photography This picture captures a fox at rest on a stone ledge, enveloped by the dappled light of a serene woodland setting. The 'studium' of this image revolves around the natural grace and the quiet moment of repose in the life of a typically vigilant creature. The fox, with its richly detailed fur, provides a focal point of warmth and vitality amidst the cool stone and leafy greens of its surroundings. The texture of its coat, rendered with careful attention to light and shadow, speaks to the skill

adaptability, is depicted in a state of rest, perhaps symbolizing tranquility and wisdom. Its placement in a corner, typically a space of transition or passage, invites a pause, an unexpected moment of reflection in a space that might otherwise be overlooked for its ordinariness.

The contrast between the warm, organic form of the fox and the cool, hard stone further plays with themes of contrast and coexistence. The stone's surface, rough and imperfect, becomes a canvas that tells a story and invites the passerby to contemplate the harmonious blend of art and environment.

This piece speaks to the human desire to find and create beauty in the mundane and to the power of art to evoke emotion and thought in daily life. It may resonate with viewers by inspiring thoughts about the overlooked corners of their world and the potential for imagination to bring life and significance to the most unexpected places.

of the artist in portraying the tactile essence of the animal and its environment.

Shadows play across the scene, suggesting the shelter and seclusion of a forest refuge, a place where the fox can relax its guard and bask in the tranquility of nature. The composition of the painting, with the fox centered and at ease, encourages the viewer to pause and reflect on the beauty of the natural world and the simple elegance of a moment of stillness.

The picture might resonate with viewers as it evokes the interconnectedness of life and environment, the peaceful coexistence that can be found away from the bustle of human activity. It invites an appreciation of the subtleties of nature, the play of light, the texture of fur, and the profound calm that can be found in the silent watchfulness of a wild animal at rest.

Punctum photography

The punctum in this photograph may be the delicate brush strokes that bring the fox's eyes to life on the stone. Amongst the monochromatic color scheme, the eyes offer a glimpse of vitality that stands out against the inanimate nature of the stone and the building. For the viewer, this singular detail can evoke a personal memory or an emotional response, perhaps

Punctum photography

The punctum of this painting could be the striking, yet serene expression on the fox's face. In the midst of this woodland scene, the fox's gaze, possibly directed at something outside the frame or lost in a midday reverie, might resonate on a deeply personal level with the viewer. It could evoke a moment of connection or recognition, perhaps recalling an unexpected

reminiscent of an encounter with a wild animal, or the feeling of being observed by a silent, watchful presence.

Alternatively, the punctum could be found in the placement of the stone itself, tucked away in the corner of a stairwell. This unexpected location for a piece of art might resonate with viewers on a personal level, reminding them of a time they found beauty in an overlooked place, or reflecting the idea that there can be a quiet sanctuary to be found in the most ordinary of spaces. It is these unique and individual reactions to specific aspects of the image that create a punctum for each observer, connecting the artwork to their own experiences and emotions.

encounter with wildlife or a time of personal reflection and peace.

Alternatively, for some, the punctum might be found in the subtle interplay of light and shadow across the fox's fur, which gives the painting a lifelike quality. The highlights and shadows might remind the viewer of the beauty and impermanence of natural light, or it could stir a memory of a time when light transformed an ordinary moment into something memorable and significant.

It is the ability of these specific, evocative details to connect the artwork to the viewer's own experiences and emotions that makes the punctum such a powerful and personal aspect of observing art.

Studium haiku

The haiku "Fox on the stone" presents a studium that delves into the realm of serenity, the interplay of light and shadow, and the natural world's presence in quiet corners of human habitation.

"On a stone, a fox rests—" establishes a scene of tranquility and repose. The fox, a creature of both the wild and folklore, is often imbued with attributes of agility and alertness. However, here, it is captured in a moment of rest, suggesting a pause from the usual briskness associated with its kind. "In the shadow of the stairs" conjures an image of seclusion and protection. The stairs provide a structure that casts a

Studium haiku

The haiku "Repose in the Glen" offers a contemplative studium, weaving together imagery of the natural world and a moment of serene stillness.

"Amber fox reclines," the opening line, immediately paints a picture of tranquility. The choice of the word 'amber' to describe the fox not only depicts the color but also invokes a sense of preciousness, like the gemstone, suggesting something valuable and rare. The act of reclining denotes a state of rest and comfort, indicating that the fox is at ease in its surroundings.

"Stone throne amidst the ivy—" introduces the environment in which this peaceful scene

shadow, a natural shelter or refuge for the resting fox. This setting may invoke feelings of solitude and retreat, offering a space where one can withdraw from the world's bustle.

"Sweetly sleeps at ease" closes the haiku with a sense of contentment and peace. The adverb 'sweetly' adds a tender quality to the fox's rest, implying that it is undisturbed and in harmony with its surroundings. The phrase encapsulates a complete surrender to the moment of rest, free from worry and strife.

This haiku invites readers to consider the simplicity of finding comfort in small havens, the beauty of restful moments, and the possibility of coexistence between the natural world and human spaces. It speaks to the universal quest for tranquility and the small joys that can be found in observing life around us.

unfolds. The 'stone throne' elevates the fox's resting place to one of nobility and stature, while the surrounding ivy suggests a setting that is both ancient and alive, enveloping the stone in a lush embrace. There is a sense of belonging and timelessness conveyed in this line, as if the fox has claimed its rightful place in the natural world.

"Dappled light whispers" closes the haiku with a gentle, sensory detail that enhances the atmosphere of calm. The word 'whispers' anthropomorphizes the light, lending it a voice — soft and hushed. The dappled pattern created by the light filtering through the leaves adds movement and texture to the scene, imbuing the moment with a quiet dynamism.

The haiku encapsulates a scene of natural harmony, inviting the reader to consider the beauty of life's quieter moments. It speaks to the peaceful coexistence of the wild and the still, the animate and the inanimate, and the simple grace found in the natural world.

Punctum haiku

In the haiku "Fox on the stone," the punctum that may resonate deeply with the reader could be the line "In the shadow of the stairs." This phrase may evoke a personal, introspective moment, recalling a time of finding solace in an unexpected shelter or a quiet, shaded spot that offered a respite from the day's heat or life's pressures.

Punctum haiku

In the haiku "Repose in the Glen," the punctum that might resonate deeply with an individual could be the line "Stone throne amidst the ivy." This particular image, where nature's softness and the stone's hardness converge, could evoke a personal reflection on finding a place of power and peace in an unexpected environment. It might remind someone of a time they stumbled upon a natural "throne"

Alternatively, the punctum might be found in the closing line, "Sweetly sleeps at ease." The word "sweetly" imparts a sense of innocence and vulnerability, touching on the reader's experiences or desires for such untroubled rest. It might remind them of a moment of witnessing such peace in another being or a personal memory of a time when they themselves felt a similar ease. It is these specific, evocative details within the haiku that have the power to transcend the general scene and connect with the reader on a deeply individual level, drawing out their own memories and emotions.	during a walk in the woods, providing a moment of quiet majesty. Alternatively, for another reader, the punctum might be found in the final phrase "Dappled light whispers." The word "whispers" personifies the light in a way that suggests a secretive sharing between the world and the observer. This subtle play of light might evoke a memory of a dappled shade under a favourite tree or a fleeting moment when the light seemed to reveal something profound. It is these small but striking details that create a personal connection to the poem, making the experience of reading it unique and intimate.

Source: own research.

The human-created photograph and haiku "Fox on the stone" and the AI-generated artwork and haiku "Repose in the Glen" both portray scenes of restfulness within nature, yet they offer different nuances and evoke unique responses.

The human-crafted "Fox on the stone" shows an actual fox resting, likely capturing a moment of genuine tranquility. The haiku complements this visual by highlighting the peacefulness of the scene — a fox at rest "in the shadow of the stairs," suggesting a harmonious coexistence with the human environment. The phrase "Sweetly sleeps at ease" emphasizes a natural, undisturbed state, invoking feelings of calm and contentment that come with finding a safe spot to rest.

On the other hand, the AI-generated "Repose in the Glen" presents an idyllic and perhaps idealized image of a fox, as suggested by the description "Amber fox reclines." The artwork is likely to be a picturesque interpretation of this scene, possibly more stylized than the photograph. The corresponding haiku enriches this imagery with a "Stone throne amidst the ivy," which elevates the fox to a regal status within its natural setting. "Dappled light whispers" add a sensory layer to the scene, focusing on the interplay of light and the environment. This

AI-generated pairing may offer a more romanticized view of nature, one that is crafted to evoke a sense of enchantment.

When comparing the two, human-made work might resonate more due to its authenticity and the candid moment it represents. It feels personal, as if the viewer stumbled upon this scene themselves. In contrast, the AI-generated pair, while it might lack this spontaneity, provides a crafted beauty that celebrates the aesthetics of nature through a poetic lens.

Both human and AI creations capture the essence of repose in nature, yet they differ in their approach: human work emphasizes the organic coalescence of the natural and built environment, while AI creation seems to celebrate the intrinsic beauty and majority of the wild. The former may connect more directly with the viewer's experiences, while the latter offers an idealized representation for the viewer's imagination to engage with.

Summary

Evaluating the human-made "Fox on the stone" and the AI-generated "Repose in the Glen" requires consideration of their emotional resonance, artistic merit, and thematic representation.

The human-created work captures a spontaneous moment in nature, presenting the fox in its genuine state of rest. The accompanying haiku enhances this natural scene, emphasizing the serenity and the unassuming grace of the moment. The emotional resonance here is found in the authenticity of the image and the simplicity of the accompanying text, which may invite viewers to connect with their own experiences of finding peace in the natural world.

In terms of artistic merit, the photograph likely offers a candid snapshot of reality, where the beauty lies in the unaltered state of the subject and its environment. The haiku, with its straightforward yet evocative language, complements the photograph by deepening the sense of tranquility and contentment.

The AI-generated "Repose in the Glen" demonstrates a different kind of artistry. The image, presumed to be visually compelling, may showcase the AI's ability to create detailed and aesthetically pleasing representations of nature. With its rich language, the haiku constructs an idyllic scene that, while it might lack the direct experience behind it, still resonates with the themes of harmony and natural beauty.

In terms of thematic representation, AI-generated work might offer a more polished and idealized portrayal of nature, one that is constructed to elicit a sense of wonder and aesthetic

appreciation. The narrative created here is one of a majestic, almost storybook nature, where every element is carefully placed to create a harmonious whole.

Comparing the two, human work may be valued for its genuine reflection of a moment in time, offering a connection to the real world that viewers can relate to on a personal level. AI work, meanwhile, might be appreciated for its artistic construction and the way it uses technology to emulate the beauty of nature and poetry.

Both works have their merits: being human-made for their authenticity and emotional connection, being AI-generated for their technical prowess and creating an enchanting narrative. Each provides a different lens through which to appreciate the intersection of nature, art, and technology.

Chapter 8 Reflection conclusion

1. Introduction

To summarize the completed analyses in "Part 3: A Multimodal exploration of haiku poetry and AI-generated art in Naxos," the document reflected on the nuanced interplay between humans and AI in interpreting haiku poetry and creating corresponding visual art. Utilizing Barthes's semiotic theory, the analyses scrutinized emotional resonance and symbolic content across different media. Each pair of human- and AI-generated works was dissected to reveal distinct interpretations of themes such as journeys, existence, and nature's cycles, capturing both alignment and divergence in the portrayal of these concepts.

These explorations underscored the unique emotional and thematic resonances that each creator brought to the fore. Human works often infuse a palpable sense of connection to thematic essence, while AI interpretations (Mikalef & Gupta, 2021) bring forward a distinct yet complementary perspective, showcasing the growing capability of technology to participate in creative expression. This nuanced interplay between human and AI creations offers valuable insights into the evolving landscape of art and poetry, challenging traditional notions of creativity and the role of artificial intelligence in the arts.

For future research, valuable findings include the following:

1. The varied interpretations of themes by humans and AI highlight the potential of AI in creative fields, providing fresh perspectives.

2. Human-created works exhibit deeper emotional connections, suggesting areas where AI might evolve.

Technological advancements: AI's ability to generate art and poetry showcases its growing sophistication.

3. The distinctiveness of AI-generated art raises questions about authenticity and the essence of creativity.

Emotional Depth: AI's current limitations in capturing the nuanced emotional depth that human art offers.

4. The increasing role of AI in creative domains prompts ethical considerations regarding originality and artistic value.

2. Educating about the growing role of AI in creative fields

Educators can leverage examples such as AI's creation of "The Loneliness of Dusk" to demonstrate AI's evolving role in art, encouraging students to understand and engage with AI as a growing force in creative industries. Additionally, comparing works such as "forgotten harvesting" (human-created) with AI-generated pieces enhances students' critical analysis skills. This comparison is not just about identifying which piece is AI-generated; it is an opportunity to delve deeper into understanding how different creators approach themes, evoke emotions, and express ideas. By analysing these nuances, students learn to appreciate the complexities of both human and AI creations, developing a more nuanced view of media content (Ameen et al. 2022; Gobet & Sala, 2019). Such analytical skills are essential in an era where media literacy increasingly requires an understanding of the intersection between technology and human creativity (Bartsch et al. 2008). This evolution of creation speaks to the heart of media pedagogy—how media evolves and impacts the way we learn, communicate, and create. It is a rich area for further exploration and research, potentially contributing to the fields of media communication, artificial intelligence, and new media art, as well as to the broader discourse in social sciences and humanities.

3. Enhancing students' ability to critically analyse both human- and AI-generated content

By comparing human-created haikus and images with those generated by AI, students can be guided to observe and critique various elements such as emotional depth, artistic style, and thematic presentation. For instance, the analysis of "Forgotten Harvest" and "Twilight's Silent Saga" reveals the human ability to evoke deep emotional resonance through subtleties in language and imagery. In contrast, AI-generated works, while sophisticated, might lack this nuanced emotional depth but offer a unique perspective in interpreting themes. Encouraging students to explore these differences sharpens their ability to discern and articulate nuances in both human and AI-generated media (Vučić, 2023), fostering a critical understanding of contemporary media content (Bartlett et al. 2022; Rezwana & Maher, 2023). This approach not only enhances analytical skills but also prepares students to navigate a media landscape where AI's role is increasingly significant.

4. Discussion of the emotional impact and depth of various forms of media

The analyses reveal how human-created works often carry an inherent emotional depth, reflecting the subtleties of human experience and perception (Bartsch et al. 2008). For instance, a human-authored haiku might convey a nuanced sense of melancholy or joy, deeply resonating with the reader's personal experiences (Burkitt, 2021; Hållander, 2019). In contrast, while AI-generated works can be sophisticated and aesthetically pleasing, they sometimes lack this depth of emotional engagement. This comparison provides a valuable context for discussing how different media formats can evoke varied emotional responses and the importance of understanding these responses in media education.

5. Exploring ethical issues related to AI in creativity

This exploration raises questions about originality and the nature of creativity itself when machines are involved in artistic processes. The juxtaposition of AI-generated pieces such as "Twilight's Silent Saga" against human creations such as "Forgotten Harvest" not only underscores the differences in emotional depth but also invites a discussion on the ethical dimensions (McLennan et al. 2022; Danaher, 2018; and Huang et al. 2023) of AI-assisted creation, including concerns about authenticity, authorship, and the potential impact on traditional creative practices (Stahl, 2021). This comparison is crucial for understanding the evolving ethical landscape in the domain of AI and creativity.

6. Encouraging interdisciplinary approaches combining technology, art, and literature

By analysing both human and AI-generated haikus and visual art, this document demonstrates how technological advancements in AI can be integrated with traditional literary and artistic methods (Leimanis & Palkova 2021; Cao et al. 2021). This approach not only enhances the understanding of each field but also encourages the appreciation of the interconnectedness and potential synergies between different disciplines (Fornasier, 2021; Nordgren,2022). Such an interdisciplinary methodology is crucial in modern education (Reimer & Khosmood, 2016), fostering a holistic understanding and encouraging innovative thinking.

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Part 3 Haikus at the intersection of mindfulness, technology and education

Chapter 1 Mindfulness, haikus, and AI. Supporting youth in stressful times
(Aleksander Cywiński)

1. Youth in stressful times

Young people dealing with stressful periods encounter various obstacles, including mental health difficulties, academic burdens, and familial tensions, as noted by authors such as Roberts (2005), Bonica (2003), Bhargava (2018), and Mathew (2015). Such stressors significantly affect individuals' mental well-being, potentially leading to adverse effects such as anxiety, depression, and behavioural issues, as highlighted by Wendt (2019), Terzian (2010), and Mathew (2015). Importantly, coping mechanisms such as positive reframing and planning are vital for stress management and mental health promotion in youth (Mathew, 2015); however, the importance of familial support and a nurturing environment in helping young people overcome these difficulties is critical (Wendt, 2019).

Furthermore, the mental health effects of stressful life events, especially during events such as the COVID-19 pandemic, on Chinese adolescents have been studied. Researchers such as Cheong et al. (2022) underscore the significance of resilience, peer relationships, and parental roles in moderating these effects. Engaging with nature has also been recognized as a beneficial coping strategy for many young individuals, favouring their mental health and overall well-being (Zamora et al., 2021). Nevertheless, it is crucial to address the unique requirements of specific youth groups, such as autistic children, who might display increased autistic traits during stressful times, particularly under higher caregiver stress and household disruptions caused by the pandemic, as Turner et al. (2023) discussed.

Generally, we function in a reality that Zygmunt Bauman described using the metaphor of fluidity, capturing the dynamics of continuous change that we experience (Bauman, 2000; Bauman, 2005; Bauman, 2006; Bauman, 2007). An uncertain reality devoid of stable signposts, where we fear becoming "human waste," forces us to question the shape of life. Perhaps even according to Fernand Braudel's concept of "The Longue Durée," civilizational transformations

irreversibly change the forms of our lives (Wallerstein, 2004). Nevertheless, being equally cognitively attractive, especially in relation to poetry, seems to be the perspective proposed by the mythologist Joseph Campbell. In a conversation with Bill Moyers, he emphasized the necessity of cultivating stories as a myth constituting the functioning of social life:

MOYERS: *You say that mythology is the study of mankind's one great story. What is that one great story?*

CAMPBELL: *That we have come forth from the one ground of being as manifestations in the field of time. The field of time is a kind of shadow play over a timeless ground. In addition, you play the game in the shadow field, you enact your side of the polarity with all your might. However, you know that your enemy, for example, is simply the other side of what you would see as yourself if you could see from the position of the middle.*

MOYERS: *So the one great story is our search to find our place in the drama?*

CAMPBELL: *To be in accord with the grand symphony that this world is, to put the harmony of our own body in accord with that harmony" (p. 54).*

Therefore, there are certain unchanging rules, although the social world is constantly evolving. Emphasizing the importance of myth, Campbell, in response to a question, states:

"MOYERS: *So when we talk about folk tales, we are talking not about myths but about stories that ordinary folks tell in order to entertain themselves or express some level of existence that is below that of the great spiritual pilgrims.*

CAMPBELL: *Yes, the folk tale is for entertainment. The myth is for spiritual instruction. There's a fine saying in India with respect to these two orders of myths, the folk idea and the elementary idea. […] The society teaches you what the myths are, and then it disengages you so that in your meditations you can follow the path right in. Civilizations are grounded in myth* (p. 59).

He concludes by summarizing the universal story – the myth – by pointing out the following:

All these different mythologies give us the same essential quest. You leave the world that you're in and go into a depth or into a distance or up to a height. There you come to what was missing in your consciousness in the world you formerly inhabited. Then, comes the problem either of staying with that and letting the world drop off or returning with that boon and trying to hold on to it as you move back into your social world again. That is not an easy thing to do (p.117).

and in describing the relationship between myth and artist, he notes:

Myth must be kept alive. The people who can keep it alive are artists of one kind or another. The function of the artist is the mythologization of the environment and the world. […] The mythmakers of earlier days were the counterparts of our artists (p.83).

To emphasize the importance of poetry as the most perfect form of describing reality and, at the same time, a method through which one experiences the absolute:

"CAMPBELL: *Well, that is what art reflects -- what artists think of God, what people experience of God. However, the ultimate, unqualified mystery is beyond human experience.*

MOYERS: *Therefore, whatever it is we experience, we have to express in language that is just not up to the occasion.*

CAMPBELL: *That is it. That is what poetry is for. Poetry is a language that has to be penetrated. Poetry involves a precise choice of words with implications and suggestions that go past the words themselves. Then, you experience the radiance, the epiphany. The epiphany is the showing through of the essence* (p.203).

Poetry, and thus haiku, can be a path to discovering a new myth, thus offering a chance for healing on both an individual and social level through creating a story that gives meaning to functioning.

However, contemporary technology is not without significance in his narrative. In the conversation, he observes:

MOYERS: *Machines help us to fulfil the idea that we want the world to be made in our image, and we want it to be what we think it ought to be.*

CAMPBELL: *Yes. However, then there comes a time when the machine begins to dictate to you. For example, I have bought this wonderful machine—a computer. Now, I am rather an authority on gods, so I identified the machine—it seems to me to be an Old Testament god with many rules and no mercy.*

MOYERS: *There is a fetching story about President Eisenhower and the first computers.*

CAMPBELL: *Eisenhower went into a room full of computers. In addition, he asked these machines, "Is there a God?" And they all start up, and the lights flash, and the wheels turn, and after a while a voice says, "Now there is."*

MOYERS: *However, is not it possible to develop towards your computer the same attitude of the chieftain who said that all things speak of God? If it is not a special, privileged revelation, God is everywhere in his work, including the computer.*

CAMPBELL: *Indeed so. It is a miracle, what happens on that screen. Have you ever looked inside one of those things?*

MOYERS: *No, and I do not intend to.*

CAMPBELL: *You cannot believe it. It is a whole hierarchy of angels -- all on slats. In addition, those little tubes -- those are miracles* (p. 27).

On the one hand, it may be an expression of prophetic abilities in the context of the development of artificial intelligence; on the other hand, it may result from an understanding of historical processes. In the face of these multifaceted considerations, we may conclude that our search for meaning and order in the world is a journey that never ends. In times when reality changes with unpredictable speed and traditional points of reference lose their significance, humanity turns to myths, poetry, and art to find reflections on their own experiences and aspirations.

The literature underscores the multifaceted nature of youth coping during stressful times, emphasizing the influence of various factors such as family functioning, support systems, resilience, nature exposure, and specific stressors such as discrimination and chronic health conditions. Understanding these factors is crucial for developing targeted interventions to support young people in managing stress and promoting their mental health and well-being. Myths, as highlighted by Campbell, act as a timeless and universal language, bridging our spiritual needs across different eras and regions. In this vein, the artist's role, particularly that of the poet, extends beyond mere creation. It becomes therapeutic, helping people and communities interpret and find meaning in their experiences. This concept especially resonates in the art of haiku, where the brevity and depth of expression encapsulate complex emotions and thoughts, offering both a creative and a reflective experience.

Similarly, technology has a dual nature. While it enhances our ability to communicate and understand, it also risks causing alienation and creating dependency. Campbell notes this duality by acknowledging technology's modern wonders and potential pitfalls.

The journey Campbell describes is symbolic of life's journey. By stepping away from comfort zones, we venture into deeper self-exploration. This journey is particularly evident in haiku poetry, where simple words and structures invite profound introspection and discovery. Whether through art, myth, or poetry—with haiku being a quintessential example—or through technology, our goal remains to comprehend our role in the universe and balance our internal and external worlds.

Our quest for meaning and purpose is perpetual. Every step, word, myth, haiku, or technological advancement can unlock deeper self-awareness and a more profound understanding of our existence. This ongoing search not only reminds us of our human condition and limitations but also highlights our boundless potential for growth, insight, and transcendence.

2. Haiku, maindfulness and AI

Numerous studies have demonstrated the varied advantages of practicing mindfulness. Research by Charoensukmongkol (2014) revealed that engaging in mindfulness meditation can boost emotional intelligence and self-efficacy while decreasing stress perception. Echoing these benefits, Spadaro (2020) identified enhancements in both physical and mental health, as well as in cognitive functions. The contributions of Paller (2015) and Tejada-Simón (2022) further underline the effectiveness of mindfulness in elevating quality of life, mitigating symptoms of depression, and enhancing cognitive skills. From a therapeutic perspective, Davis (2011) explored the benefits of mindfulness in psychotherapy, while Russo (2019) examined its positive impact on group environments. Additionally, both Geisler (2018) and Schreiner (2008) have underscored its effectiveness in diminishing negative emotions and fostering better emotional states.

Several studies have delved into the convergence of mindfulness and haiku. Roth (2020) posits that both haiku composition and mindfulness practices offer valuable insights for teacher education, given their shared themes and discursive elements. Blyth's (1951) and Marshall's (2013) works focus on the spiritual and societal dimensions of haiku, with Marshall considering it a form of intellectual play. Ziliak (2005) and Nitta (2019) address the efficiency and universality inherent in haiku, with Nitta advocating for its application in digital communication contexts. The interpretive and historical facets of haiku were examined by Blasko (1999) and Kerkham (2006), while Stryk (1986) highlighted the profound relationship between haiku and the natural world. These studies suggest that haiku is an effective medium for fostering mindfulness and introspection.

Numerous studies have underscored the therapeutic advantages of writing poetry. Bolton (1999) and Springer (2006) both highlight poetry's capacity to aid healing, especially for individuals recovering from trauma and addiction. The applications of poetry as both a diagnostic instrument and a means to cultivate a genuine voice were explored by Silverman (1983) and Kempler (2003). Chan (2003) acknowledges poetry's ability to enhance self-awareness and reduce stress. The efficacy of poetry in specific contexts, such as nursing homes and therapeutic sessions, is discussed by Healey (2017) and Baker (2004), while Goldstein (1989) delves into its utility in achieving therapeutic objectives within group therapy settings. These studies emphasize the varied and substantial therapeutic impact of poetry writing.

Given the technological progress we are witnessing, it seems reasonable to consider the application of AI in writing Haiku, an activity that, according to Joseph Campbell's earlier-

mentioned views on the significance of myth and art creation, could serve to construct new narratives, shaping the world. Of course, from a postmodernist perspective, as described by Zygmunt Bauman, it is difficult to speak of a single narrative. Nevertheless, Campbell's ideas are pertinent again; if the essence of life is the hero's journey, that is, facing life's adversities, then on a global scale, this could be the climate crisis, while locally, it could be the war in Ukraine.

Various studies have delved into the application of AI for producing haikus by examining different methods and models. Wong (2008) and Aguiar (2019) both utilize artificial intelligence (AI) and deep learning techniques for haiku creation, with Wong concentrating on the use of keyword seeds and their semantic aspects, while Aguiar employs large language models. Further research on automated haiku generation was presented by Hresková (2018) and DiMelis (2023), where Hresková introduced a method for creating haikus and Liu focused on refining large language models to produce haikus adhering to traditional syllabic patterns and eliciting emotional resonance. Both Rzepka (2015) and Tosa (2008) developed haiku generators that incorporate multimedia elements and user-selected phrases to enrich the user experience. Additionally, Bunnapradist (2022) is working on developing a transformer language model designed to generate haikus that are coherent, relevant, and artistically appealing.

This leads us to the next stage, which is image generation. This has been made possible thanks to the further development of AI concepts—this time towards creating images. Wang (2023) developed a method to refine AI-generated images to better express the emotions and contexts of the input texts, which could be applied to the visual response to haikus.

3. Conclusions

Growing up has always been challenging. Childhood and adolescence are filled with hurdles ranging from academic pressure to social dynamics, leading to significant stress. In the digital era, these challenges are magnified by online personas and the need for constant connectivity. However, the integration of mindfulness practices, the simplicity of haiku, and advancements in AI provide a unique and effective educational support system.
Today's youth face numerous stressors, including academic demands, peer pressure, and complex online interactions. These factors often result in feelings of anxiety and overwhelm. Understanding these challenges is the first step toward addressing them. Mindfulness is fundamentally about being present and aware without judgement. For young people, this practice offers a way to step back, gain perspective, and tackle challenges with a clearer mind.

Haikus, with its brief and structured format, promotes observation and reflection. Encouraging youths to express their feelings or surroundings in haiku aids in developing introspection and expression. For example, a haiku-like:

"One world, one planet

Currently, the dying environment

Looking for hero" (author: Aleksander Cywiński)

helps in channelling emotions and fostering self-awareness.

AI brings a modern dimension to this process. Platforms such as Midjournay can convert written emotions into visual art, visually representing a young person's feelings and thoughts. This visual response to haiku can be validated and insightful, especially for the digital-native generation, in which traditional art forms are effectively blended with contemporary technology.

Educators can embed these practices into everyday routines or special mindfulness sessions. Initiating classes involving mindfulness exercises and writing haiku about daily experiences can positively impact the learning environment. Incorporating AI-generated visual responses as a regular activity allows students to visually reflect on their emotional journeys.

This triad of approaches involving mindfulness, haikus, and AI visualizations offers a comprehensive strategy for alleviating stress in young individuals. It melds timeless techniques of mindful observation with the cutting-edge capabilities of technology, equipping children and adolescents with the necessary skills to navigate the complexities of modern life.

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Chapter 2 Creative expression in education. Integrating haiku poetry and language learning *(Dorota Hrycak-Krzyżanowska)*

Introduction

The integration of Haiku into educational practices is a compelling method for enhancing language acquisition and fostering creative capacities. This pedagogical strategy, underpinned by substantive academic inquiry, leverages the distinct 5-7-5 syllabic pattern of Haiku as a formidable instrument in the realm of language education. Beyond mere linguistic development, this approach transcends conventional methodologies, offering a unique avenue for engaging with language through a concise yet expressive format. It encourages brevity and precision, essential skills in linguistic proficiency, and nurtures an appreciation for linguistic nuances and cultural depth inherent in this traditional form of Japanese poetry. This reconfiguration of language learning, through the lens of Haiku, not only enriches the educational experience but also broadens the scope of pedagogical possibilities (Schmitt, 2000, Kırkgöz, 2008, Faulkner, 2010, Iida, 2012, Leavy, 2014, Santillán-Iñiguez et al. 2022).

1. Vocabulary, grammar, and punctuation

According to Yasemin Kırkgöz (2008), the concise and rigorous form of Haiku requires learners to make precise word choices, which directly contributes to the development of their language proficiency. A student must carefully select words to fit the 5-7-5 syllable structure while conveying the intended meaning. Working on Haiku helps students understand the importance of each syllable and how word choice impacts the overall message and rhythm of the poem. In the context of language learning, such practices can aid in a better understanding of linguistic subtleties, as well as in developing writing and speaking skills.

Delving into the analyses by Lakoff, G. i Johnson, M. (1980), Norbert Schmitt (2000) and Harmer, J. (2007) of the impact of haiku on vocabulary development, we can see how this form of poetry encourages a deeper understanding and use of language. Haiku often focuses on specific images and scenes from nature, forcing students to reach more advanced and specific vocabulary. For example, instead of using the general word "bird," students might choose a more specific term, such as "robin" or "lark." This not only enriches their vocabulary but also helps in precisely conveying images and experiences.

Faulkner (2010) emphasized that Haiku can be used as a tool to teach various aspects of language, such as grammar, vocabulary, and phraseology. The Haiku structure forces students to consciously use grammatical language structures. They must ensure that their Haiku is grammatically correct, despite syllabic limitations. This exercises the ability to apply and understand grammatical rules in practice, not just in theory. Haiku encourages the selection of words that not only fit the syllabic limitations but also have strong meanings or evoke specific images or emotions. This helps in developing a rich vocabulary and encourages the exploration of new words that can be more expressive and precise.

The structured conciseness of Haiku, as indicated by Pastorello (2022), is exceptionally effective in refining language skills, both for those learning a new language and for those wishing to delve deeper into their native language. Haiku requires creators not only to make precise word choices but also to have a deep awareness of syntax and language structure. In creating Haiku, syllabic limitations force learners to search for and select words that are both meaningful and appropriate for the form. This expands their vocabulary, as they must find specific words that best convey their thoughts and feelings. As asserted by Juana Santillán-Iñiguez, Fabián Darío Rodas-Pacheco (2022) and Pastorello (2022), Haiku also requires precision in terms of grammar. Each word must be correctly placed to create a grammatically correct whole that is also concise and full of meaning. This helps in a better understanding of grammatical rules and their application. Working on Haiku forces students to have a deeper understanding of language. They must consider not only the literal meaning of words but also their connotations and the way different words interact with each other, creating a richer, more nuanced message.

In Haiku, due to syllabic limitations, the choice of the main theme and its placement in the poem are key. Students learn to distinguish between the subject and the complement and how to effectively convey an idea in a condensed form. Haiku often uses elliptical constructions, where certain sentence elements are omitted but are still understandable from the context. This teaches students how to omit some parts of speech while maintaining clarity and coherence. Poets often use various grammatical structures, such as questions, statements, or imperatives, to convey their message. This encourages students to explore different forms of sentences.

Students learn how important prepositions and conjunctions are in determining the relationship between words and phrases and in conveying accurate meaning. Adjectives and adverbs are often used in Haiku to add depth and color to the image. Shirane Haruo (2015) suggested that students learn how modifiers can change the meaning or mood of a poem and

how important their appropriate use is. Addressing the issue of the limited number of syllables in Haiku, Scott Thornbury (2006) points out the importance of the correct order of words, which is particularly important in English, where the order of adjectives before nouns and sentence structures can significantly change the meaning and reception of the poem. In English, the order of adjectives before nouns is fixed and has great significance. For example, one says "a beautiful big house" instead of "a big, beautiful house" if one wants to emphasize the beauty of the house more than its size. Haiku often uses unusual sentence constructions to fit the form and convey desired emotions or images. In English, changing the word order in a sentence can change the author's intention or evoke different emotions. For example, the sentence "Silently, the river flows" focuses on silence, while "The river flows silently" emphasizes the river itself.

Consider the following Haiku:

Quiet river flows,

Life in circles ever turns,

Wisdom in nature.

"Quiet river flows" places the adjective "quiet" before the subject "river," emphasizing the atmosphere of silence. "Life in circles ever turns" is a construction that emphasizes continuity and the constant movement of life. "Wisdom in nature" is a concise statement that conveys the deep meaning of the entire poem. Working on Haiku in English is an excellent opportunity to teach students about the importance of word order, sentence constructions, and word choice. This allows for a deeper understanding of how different linguistic elements affect the message and reception of the text, which is a valuable skill in every aspect of language.

Traditional Japanese Haiku uses kireji, or "cutting word," which acts as a kind of punctuation. It is a unique feature that divides the poem and gives it a rhythm. Although in Haiku, which is written in languages other than Japanese, kireji does not literally occur, the principle of division and tone change can be used in teaching to show how punctuation affects intonation and sentence meaning. David Crystal (2003) emphasizes the importance of understanding the role of punctuation in language. A teacher may ask students to write a Haiku in which the second verse ends with a comma. Then, one can discuss how this comma affects the rhythm, intonation, and interpretation of the entire poem. This exercise shows how subtle changes in punctuation can change the reception and meaning of the text.

Example of Haiku Using Punctuation:

Rainy morning,

Drops on leaves, tranquillity,

Nature breathes.

After the word "leaves", the comma introduces a pause, highlighting the contrast between the first and second parts of the poem. Students can experiment with different placements of the comma, observing how it changes the rhythm and meaning of the poem.

William J. Higginson (1985) emphasized that analysing different Haiku in terms of the use of kireji can help understand how this element affects the rhythm, tone, and overall meaning of the poem. Students can explore how changes in intonation affect the interpretation and experience of Haiku while learning how intonation and punctuation are used in more complex poetic forms.

Using Haiku in teaching demonstrates how punctuation and intonation are important in shaping the meaning and rhythm of language. By experimenting with different forms of Haiku, students learn how subtle linguistic tools such as punctuation can have a significant impact on the text, both in poetry and in more conventional forms of writing.

Creativity, Metaphors, and Phraseology

Lakoff, G. i Johnson, M. (1980), Juana Santillán-Iñiguez and coauthors (2022, 2023) emphasize the significant role of Haiku in education, indicating that this form of poetry not only improves language skills but also develops creative thinking. Haiku encourages students to combine abstract concepts with concrete images and emotions.

Suppose students receive a task to write a Haiku about rain:

Drops dance downwards,

Silvery song on the glass,

The quiet voice of autumn.

In this Haiku, the student combined concrete images (raindrops, glass) with abstract feelings (song, voice of autumn). The use of the word "dance" suggests movement and life, giving raindrops a dynamic character. "Silvery song" can evoke visual and auditory associations, helping the reader to experience the beauty and tranquillity associated with rain. The final line, "Quiet voice of autumn," introduces a temporal and emotional context, adding depth and meaning to the entire poem.

Such a task requires students to use both specific language skills and creative thinking. The choice of the Haiku topic can also be consciously used to develop creativity. Students can be encouraged to write Haiku on various topics, from nature to emotions, which helps them develop the ability to think abstractly and search for metaphors.

According to Lakoff, G. and Johnson, M. (1980), Haiku often uses metaphors, symbols, and other phraseological elements to convey deeper meaning in a brief form. Working on Haiku can help students understand and apply these phraseological tools in language, which is

important for advanced language mastery. An example could be a task in which students are asked to create their own Haiku on a specific theme. In Haiku, students must convey an image of the autumn landscape.

Cold wind whispers,

Leaves dance in colors,

Autumn speaks softly.

"Cold wind whispers" use an adjective and a verb to create a clear image and sound. "Leaves dance in colors" uses a metaphor ("dance") to capture the movement of leaves and their colorful nature. The last line, "autumn speaks softly," introduces personification and encourages reflection on the subtlety and calmness of the autumn atmosphere. Such an exercise allows students not only to practice a specific language structure but also to develop a deeper understanding and appreciation of the poetic use of language. It should also be emphasized that the conciseness and precision of Haiku help to achieve a meditative focus, developing students' observational skills and attention to detail. This mindfulness translates into language and art learning, where the rules of Haiku inspire concise yet expressive capture of an object's essence. Stephanie L. Brooke (2006) highlights that integrating Haiku into art education can enrich the educational experience by combining language learning with art and culture while simultaneously cultivating creativity and awareness.

2. Conclusion

In conclusion, Haiku has a profound effect on enhancing both linguistic skills and creative thinking. This multifaceted approach, underpinned by the scholarly works of Kırkgöz, Santillán-Iñiguez, Iida, Faulkner, and Leavy, demonstrates that Haiku is more than just a poetic form; it is a dynamic educational tool that transcends traditional language teaching methods. Through its structured conciseness and emphasis on precise language, Haiku compels students to delve deeply into the nuances of vocabulary, grammar, and punctuation.

This exploration of linguistic subtleties not only sharpens language proficiency but also fosters a deeper understanding of how language functions as an expressive medium. The necessity of conveying complex ideas within the limited syllabic framework of Haiku encouraged students to think creatively and abstractly, enhancing their ability to use language in innovative ways. The use of metaphors, symbols, and other phraseological elements in Haiku serves as a gateway to advanced language mastery, allowing students to engage with language on a more profound level.

Furthermore, Haiku's emphasis on natural imagery and seasonal references enriches the learning experience, connecting students with cultural and environmental contexts. This connection aids in developing multicultural competence, as Haiku's roots in Japanese tradition provide a unique perspective on linguistic and literary creativity.

The pedagogical application of Haiku in language education thus represents a combination of art and science, creativity and methodology, offering students a comprehensive learning experience that extends beyond conventional language learning frameworks. In essence, Haiku serves as a bridge that connects linguistic knowledge with creative expression, enabling students to explore and appreciate the intricacies and beauty of language in a profound and meaningful way.

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Chapter 3 Lesson plans and workshops *(Dorota Hrycak-Krzyżanowska)*

1. **Introduction**

The following lesson plans and workshops are designed to guide educators in effectively incorporating Haiku poetry into their language teaching. These resources are tailored to engage students of various age groups and learning levels, ensuring that the journey into language learning is both accessible and impactful. From understanding the basic structure of Haiku to creating their own poetic expressions, students will embark on a journey that bridges the gap between artistic creativity and linguistic proficiency.

2. **Signs of body language**

The workshop includes a unique and creative activity where participants interact with Haiku poems in a physical and expressive way.

This process begins by playing gentle music, preferably inspired by Japanese folk tunes. Ask the students to form a line, facing a wall without any haikus displayed. Then, instruct them to turn around one by one when you touch their hand and begin walking through the haiku gallery

1. Participants walk through a gallery of Haiku poems. These poems can be displayed on walls or in any designated area. Each participant starts at one end of the gallery and moves from one Haiku to the next, including their own if they have written one.

2. When a participant stops at each Haiku, they are required to create a body sign or hieroglyph. A body sign is a physical gesture or posture that represents their interpretation or emotional response to the Haiku they are standing next to. This gesture should be a nonverbal expression of what they feel or understand about the Haiku. For example, if a Haiku is about a blooming flower, a participant might create a body sign by mimicking the gesture of a blooming flower with their arms and hands.

3. The unique aspect of this activity is that transitions between Haikus species are synchronized. While one participant is creating their body sign at a Haiku, the next participant in line is also approaching the same Haiku. The goal is to maintain a continuous flow without disruptions.

4. Participants need to coordinate their movements and timing to ensure a smooth transition. This requires them to be aware of when to move to the next Haiku while still respecting the time it takes for others to read and create their body signs.

5. As participants move through the gallery, they observe not only the Haiku but also the creative body signs of their peers. It adds a layer of nonverbal communication and interpretation to the experience.

This activity encouraged participants to engage with Haiku poems on a physical and emotional level, expressing their understanding and feelings through body language. It is a unique way to immerse oneself in the world of Haiku and foster a deeper connection with poetry.

3. Lesson 1

Title: Create your own illustrated haiku

Lesson Plan

Objective

To enable students to explore the elements of art and haiku poetry, fostering creativity, cultural appreciation, and literacy skills.

- The art elements in the environment and artworks are recognized, with a focus on line, color, and shape/form.
- Craft a collage using cut or torn paper shapes/forms.
- A poem or story inspired by self-created art can be compared.

Materials

- Straws (one per student, bendable preferred)
- Black poster ink (water-dilutable)
- Paintbrushes
- Coloured tissue paper
- White glue
- Hairdryers
- Pencils
- 8 1/2" x 11" sheets of paper

Duration: 30 minutes

Grade Levels: Early Elementary School (K-3), Elementary School (4-5)

Academic Subjects: English & Language Arts, Visual Arts

Procedure

- Introduction (5 minutes):
    - Introduce the lesson and discuss the connection between art and poetry, particularly focusing on haiku.
- Art creation (15 minutes):
    - Students place a nickel-sized drop of ink on a sheet of paper.
    - When straws are used at a low angle, they blow ink to create branching effects.
    - A hairdryer was used to dry the ink.
    - Students enhance their inkblots with torn colored tissue paper and apply glue to create natural imagery such as leaves or flowers.
- Haiku writing (5 minutes):
    - Explain the structure of a haiku (5-7-5 syllable pattern).
    - Students observe their artwork and write a haiku inspired by it on a separate sheet.
- Assembly and presentation (5 minutes):
    - Students glue their haiku next to their artwork.
    - Briefly share their creations with the class, discussing the imagery and emotions conveyed.

Wrap-up (5 minutes):

- Reflect on how art and poetry intertwine to express ideas and emotions.
- Encourage students to notice and appreciate the beauty of their everyday surroundings.

4. Lesson 2

Title: Haiku poetry and artistry in public spaces.

Objective

Concentration, mindfulness, imagination, and cultural awareness should be developed through the exploration of haiku poetry and its use in public spaces.

Duration: 90 minutes

Materials

- Paper and pens.
- Multimedia projector.
- Sample haiku poems (for display).

Course of classes

I. Introduction (5 minutes)

The participants were welcomed, and the lesson's objectives were explained.

This paper provides a brief overview of the history of haiku and its significance in Japanese culture.

Outline the lesson plan.

II. Warm-up and mindfulness (5 minutes)

Conduct a short warm-up session to increase awareness of the body and presence in the space.

This can include simple breathing and relaxation exercises.

Emphasize focused breathing and mindful awareness of one's body.

III. Introduction to haiku (15 minutes)

Display examples of haiku poems and engage in a brief discussion about them.

The key features of haiku are as follows: brevity, three lines, seasonal elements, emotions, and feelings.

IV. Haiku creation exercises (20 minutes)

The participants were divided into groups.

Each group receives a set of words or images representing a season (e.g., spring, summer, autumn, or winter) and is asked to create haiku poems using these elements.

Each group presents their haiku to the rest of the class.

V. Elements of the theater and performing arts (10 minutes)

Briefly discuss how haiku can be used in theater and other performing arts.

Show an example of a performance where haiku is used as a form of artistic expression.

VI. Haiku in public spaces (10 minutes)

Examples of how haiku can be found in everyday life, such as on posters, in the streets, or in advertisements, are presented.

Participants were encouraged to pay attention to such instances in public spaces and reflect on their significance.

VII. Creating haiku for action (10 minutes)

Participants receive a brief description of a place or situation in a public space.

Their task is to create a haiku that fits the described situation and can be used as a form of action or expression in that space.

VIII. Wrap-up and reflection (10 minutes)

Participants were asked about their experiences and feelings during the lesson.

The skills that were developed during the session, including mindfulness, concentration, imagination, and the ability to communicate through art, were discussed.

Participants were encouraged to continue exploring haiku and other artistic forms.

IX. Conclusion (5 minutes)

We thank the participants for their participation in the lesson.

They were encouraged to create their own haiku poems and explore art in public spaces.

Provide informational materials about haiku and related literature.

This lesson plan aims to introduce participants to haiku; develop their mindfulness, imagination, and cultural awareness; and inspire them to create and express themselves through art.

5. Lesson 3

Title: Haiku in language education (second and heritage language learning)

Objective

We explore the use of haiku poetry as a creative tool for second and heritage language learning, focusing on language proficiency and cultural understanding.

Duration: 60 minutes

Materials

- Whiteboard and markers
- Haiku poems (prepared in advance)
- Handouts with haiku examples

I. Introduction 2 minutes)

The participants were welcomed, and the lesson's objectives were explained.

This study explains the significance of haiku in language education and cultural appreciation.

II. Warm-up activity (5 minutes)

The participants engaged in a quick icebreaker or warm-up activity to create a positive learning atmosphere.

III. Understanding haiku (5, minutes)

The structure and characteristics of haiku poetry, including its syllable count (5-7-5) and focus on nature, emotions, and daily life, are discussed.

Examples of haiku poems from various cultures are provided.

IV. Cultural context (7 minutes)

Explain how haiku reflects cultural values and traditions.

The role of seasonal references in haiku and their cultural significance are discussed.

V. Haiku reading (10 minutes)

Distribute handouts with haiku poems written in the target language.

Participants were encouraged to read and discuss the poems in small groups, focusing on comprehension and interpretation.

VI. Haiku writing (10 minutes)

Prompts or themes related to the language being learned were provided.

Participants were asked to write their own haiku poems in the target language.

Encourage creativity and self-expression.

VII. Sharing and discussion (5 minutes)

Participants were invited to share their haiku poems with the class.

Encourage discussion and feedback on each other's work.

VIII. Language proficiency (5 minutes)

We discuss how composing haiku can enhance language skills, such as vocabulary, grammar, and expression.

The importance of practice and creative writing in language learning should be emphasized.

IX. Cultural awareness (5 minutes)

This study highlights how engaging with haiku can deepen cultural understanding and appreciation.

Participants were encouraged to explore more about the culture associated with the target language.

X. Conclusion and reflection (5 minutes)

Summarize the key points of the lesson.

Participants were invited to continue exploring haiku as a language learning tool and cultural connector.

The participants were asked to reflect on their experience with haiku during the lesson.

Inquire about their thoughts on integrating haiku into language education.

XI. Homework assignment (1 minute)

Assign homework that involves writing haiku poems in the target language and researching related cultural aspects.

This lesson plan aims to introduce participants to haiku as a valuable tool in language education, fostering language proficiency and cultural awareness through creative expression.

6.   Lesson 4

Title: Exploring presence and language - through haiku and space

Objective

To foster presence, language learning, and cultural awareness through the exploration of haiku poetry and spatial awareness.

Duration: 60 minutes

Materials

- Open space for movement
- Music player with soothing instrumental music
- Blank sheets of paper and markers
- Sample haiku poems

I. Introduction (2 minutes)

- The participants were welcomed, and the purpose of the session was explained.
- The importance of being present in the moment, the connection between language and culture, and how the physical environment can enhance language learning are emphasized.
- Participants were instructed to remove their shoes before entering the room.

II. Haiku introduction (8 minutes)

- Display sample haiku poems that exemplify brevity, seasonal elements, and emotions.
- The significance of haiku in Japanese culture and its role in language learning are discussed.
- Share the plan for the session, focusing on combining haiku exploration with spatial awareness.

III. Body awareness and presence (10 minutes)

Participants were asked to enter the room, choose any spot to stand in, and face any direction they preferred. Guide them through a series of body awareness exercises:

a. Stand with your feet hip-width apart and close your eyes. Focus on your breath and the sensations in your body.

b. Slowly raise and lower your arms while paying attention to the movement and sensations in your muscles.

c. Shift your weight from one foot to the other, noticing balance and grounding.

The participants were encouraged to explore the entire room while maintaining the mindfulness of their bodies.

IV. Spatial exploration with haiku (15 minutes)

- Play soothing instrumental music.

- The sample haiku poems were distributed to the participants.

- Participants were instructed to continue moving around the room, exploring different spots and directions while reading and reflecting on their assigned haiku.

- Emphasize the importance of observing the spatial elements in the room and how they relate to the haiku's themes.

V. Haiku creation (10 minutes)

- Each participant was provided with a blank sheet of paper and markers.

- The participants were asked to create their own haiku inspired by their observations and experiences in the room.

- Encourage them to capture their feelings, thoughts, or insights related to presence and spatial awareness.

VI. Sharing and Reflection (10 minutes)

- Participants were invited to share their haiku creations with the group.

- Facilitate a brief discussion on how their haikus reflects their presence and awareness in the space.

- Participants were encouraged to reflect on the connections among language, culture, and spatial awareness.

VII. Conclusion and integration (4 minutes)

- Summarize the key takeaways from the session, emphasizing the interplay of language, culture, and presence.

- This study provides suggestions for integrating haiku exploration and spatial awareness into language learning.

VIII. Closing (1 minute)

- We thank the participants for their active participation.

- Invite them to carry the sense of presence, cultural awareness, and language exploration with them as they put on their shoes and exit the room.

This session aimed to deepen participants' understanding of presence, language learning, and cultural awareness through the exploration of haiku poetry and spatial awareness, fostering a greater connection to language, culture, and their surroundings.

7.   Lesson 5

Title: Integrating haiku into visual arts.

Objective: Students integrate the poetic form of haiku into visual arts by creating an artwork that visually represents the themes within their own written haikus.

Duration: 60 minutes

Materials

Art supplies (paint, brushes, pencils, markers, canvas or paper)

Examples of haiku poetry

Example artworks that integrate text and imagery

Handouts with guidelines on writing haiku

Lesson Outline

I. Introduction to haiku (6 minutes)

Briefly discuss the history and structure of haiku.

Read a few examples of haiku and discuss the imagery and emotions they evoke.

II. Writing a haiku (12 minutes)

 The handouts were distributed according to the haiku guidelines.

Students were instructed to write their own haikus, focusing on a natural theme or a moment in nature.

Share haikus within small groups or within a class.

III. Introduction to the art project (7 minutes)

Explain how words and images can be integrated into art.

Examples of artworks that combine text and visual elements are shown.

The concept of visual metaphors and symbolism in art is discussed.

IV. Art creation (20 minutes)

Students begin creating a piece of art inspired by their haiku.

Encourage students to think about how the visual elements of their artwork can represent the themes and emotions in their haiku.

The room was circulated, and assistance and encouragement were provided.

V. Sharing and reflecting (5 minutes)

Students will share their artwork and haiku with the class.

We discuss how the visual elements complement the text of the haiku.

Reflect on the process of combining visual art with poetry.

Assessment (8 minutes)

Students will be assessed on their ability to create a haiku and an accompanying piece of art that captures the essence of the haiku in a visual form.

Closure (2 minutes)

We thank the students for their creativity and for providing them with a powerful connection between visual art and poetry. They were encouraged to consider how different art forms can be integrated into future projects.

Follow-up

The students' artwork and haikus were displayed in the classroom or school hallway. Offer students the opportunity to write a reflection on the process and their final pieces.

To further explore the use of haiku in art education, the following themes can be considered:

1. Haiku, as a visual art promoter, used haiku to inspire visual art projects. Students can create paintings, drawings, or mixed media art that visually interprets the imagery and emotions evoked in a haiku. This approach fosters a deeper understanding of the poem's imagery and encourages students to express these images in a visual form.

2. Integration of calligraphy and haiku combines the art of calligraphy with Haiku writing. This not only enhances the aesthetic appeal of written words but also allows students to explore another aspect of Japanese culture. The practice of calligraphy requires mindfulness and concentration, qualities that are intrinsic to both Haiku writing and visual arts.

3. Haiku and photography - encourage students to capture photographs that depict the scenes or themes of their Haiku. This exercise helps students develop a keen eye for detail and composition in photography, paralleling the precise and evocative nature of Haiku.

4. Collaborative art projects - organize collaborative projects where students work in groups to create larger art installations or murals based on a series of haiku. This

promotes teamwork and collective creativity, as students must work together to visually represent a cohesive theme or story.

5. Exploring seasonal changes through haiku and art focuses on Haiku, which is characterized by different seasons. Students can create art that reflects these seasonal changes, understanding the importance of nature and seasons in Japanese culture and haiku. This exercise can also be an exploration of color theory and how colors evoke different emotions and atmospheres.

6. Haiku, as a narrative in sequential art, uses haiku to create storyboards or comic strips. Students can breakdown haiku into a series of images that tell a story, which is an excellent exercise in narrative construction and sequential visual storytelling.

7. Mindfulness and creative reflection—incorporated mindfulness practices into art lessons focused on haiku. Allow students time for reflection and meditation, enabling them to create art that is more introspective and personal.

By incorporating these elements, haiku can become a versatile tool in fine art education, bridging language, culture, and visual expression. This holistic approach not only enhances students' artistic skills but also enriches their cultural understanding and appreciation for the subtleties of language and art.

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