

Cultural Landscape of Industrial Heritage: Aesthetic Literacy Education of the Spatial Production Thought

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ABSTRACT

As China's economy and culture become increasingly globalized and open to exchange, students' aesthetic views have revealed potential danger signals during the evolution of civilization, sometimes manifesting as deliberate neglect and challenge to righteous culture. This study focuses on the issues faced by contemporary aesthetic education for students, particularly the oversight by teachers during lesson preparation in identifying learning materials that are both engaging for students and have experiential educational value. Based on the immersive learning characteristics of intuitive experiential education, the study employs an exploratory case study method, utilizing the industrial heritage cultural landscape of Fanshan Town in Anhui, China, as a tool and resource for students' aesthetic education. It constructs a knowledge system of alum culture landscape aesthetic literacy, grounded in the thought of "Harmony between Man and Nature", centered on the elements of contemporary students' aesthetic literacy. The findings indicate that the cultural landscape of the alum industrial heritage situates the construction of the aesthetic literacy knowledge system within a broader and more credible temporal and spatial context. This provides high-quality learning materials for the experiential teaching process, helping students draw lessons from historical reflection and enrich their aesthetic cultural literacy.

Key words: Industrial Heritage, Cultural Landscape, Spatial Production, Aesthetics Literacy, Experiential Education

INTRODUCTION

Aesthetics, as a unique way for humans to understand the world, reflects the non-utilitarian, image-based, and emotional connections humans establish with the world during spatial production. Through aesthetic activities, humans as aesthetic subjects develop aesthetic literacy systems to express their perceptions of the world. Aesthetic literacy systems, which represent people's interpretations of the world from an aesthetic perspective, gradually form in the practice of social spatial production and are closely related to other ideologies such as politics and morality, together forming a crucial part of aesthetic education. Although every historical period, cultural background, and social group has its unique aesthetic thoughts, these thoughts generally possess common characteristics of educational and cultural inheritance.

As the process of globalization accelerates, the aesthetic activities of contemporary students are deeply influenced by the exchange and integration of Eastern and Western cultures. This offers a valuable opportunity to comprehensively and objectively understand the world, and their aesthetic values are becoming more open and diverse. However, some students still struggle to recognize the profound cultural connotations and lack the ability to rationally judge diverse

values. They regard novelty as trendy, tradition as outdated, and depth as tedious, resulting in a confused sense of aesthetic values (Qu, 2020). Without timely and effective aesthetic literacy education, behavior contrary to moral and ethical standards becomes predictable. The landscape of modern education is rapidly changing, and this phenomenon is driven in part by increasing social needs and expectations (Tar Lim et al., 2024). Understanding how contextual elements within educational environments relate to student identity formation can help educators design experiences intended to support their identity formation processes (Meerts-Brandsma et al., 2023).

Industrial heritage cultural landscapes, to some extent, play a role in spatial aesthetic narration. They not only possess inherent aesthetic productivity but have also stood the test of time and practical application, offering valuable insights and lessons. Consequently, it is particularly important to continuously review the history and draw experience from the aesthetic activities of culture-responsive service learning (Yomantas, 2021) to continuously and accurately revise the aesthetic view of contemporary students. Through this process, they better understand the justifications for their values and beliefs, even though the values and beliefs may remain the same (Meerts-Brandsma & Sibthorp, 2021) and

contribute to the increasing adoption of experiential learning in higher education (Wurdinger & Allison, 2017).

Objectives and Research Questions

This study addresses the issue of contemporary students' aesthetic literacy, integrating the immersive learning demands of intuitive experience education and drawing on the aesthetic concepts of Chinese spatial production. It aims to explore the potential of using industrial heritage cultural landscapes as aesthetic resources. In the early stages of teaching, a personalized and experiential aesthetic literacy cultural model is constructed to activate students' intuitive perception abilities during the learning process and enrich their aesthetic cultural literacy. Regarding the research objectives, this paper discusses the following research questions:

1. The current aesthetic education lacks learning materials that are engaging and meaningful for experiential education. In this context, what is the theoretical basis for considering industrial heritage cultural landscapes as high-quality resources for aesthetic literacy practice education?
2. After adopting industrial heritage cultural landscapes as tools and materials for practical education, how can we construct an aesthetic literacy knowledge system that allows aesthetic ideas to more intuitively and effectively enhance students' aesthetic literacy?

Background and Theoretical Framework

For a long time, the characteristic of cultural landscapes as an educational resource of aesthetic literacy has been overlooked and underestimated. However, as an academic term, its definition encompasses various forms of interaction between humans and their natural environment, with its usage and interpretation evolving over time and space. Early interest from the geographical community was directed towards this concept. Carl Ritter appears to have been the first to use "Kulturlandschaft" in 1832. He was followed by Carl Vogel in 1851, Joseph Wimmer in 1882 and 1885, and Friedrich Ratzel in 1893 (Potthoff, 2013). Probably the best-known early user of the term "cultural landscape" is Friedrich Ratzel. The American geographer Carl Ortwin Sauer was the first to introduce the German term "Kulturlandschaft" into the English geographical literature (Jones, 2003). In 1925, he proposed the relationship assertion in "The Morphology of Landscape" stating, "the cultural landscape is fashioned from a natural landscape by a cultural group. Culture is the agent, the natural area is the medium, the cultural landscape the result" (Sauer, 1925), implicitly acknowledging the influence of human aesthetic wisdom. Until the 1960s, the term "cultural landscape" was increasingly adopted by aesthetics, pedagogy, and other disciplines.

By the mid to late 1990s, as various traditional industries established in the modern era began to decline, Chinese cities entered a development phase focused on renewal and transformation. Industrial heritage cultural landscapes serve as empirical evidence of local aesthetic activities, embodying the charm of the Chinese aesthetic thought of "Harmony

between Man and Nature" (HBMAN). This has garnered significant attention from scholars and the broader society, leading to a burgeoning interest in their preservation and adaptive reuse.

The exploration of the relationship between humans and nature has been an enduring pursuit in the history of theory (Liu & Wu, 2024). It not only reflects profound contemplation on the interdependence between human existence and the spatial ecological environment but also unveils unique insights and solutions offered by different cultures and ideological systems to this issue. The thought of HBMAN is a culmination of the collective wisdom of ancient Chinese thinkers and philosophers. It represents a cognitive approach developed during the process of exploring nature (Song & Cao, 2022) and is an integral part of Chinese aesthetic culture. Historically, non-Western traditions in general have embraced the holistic conception of Nature which encompasses all existence (Gulick, 1963). They have approached the laws governing the spatial production relationship between humans and nature with reverence, embarking on such explorations early on. The aesthetic thought of HBMAN in spatial production saw significant development during the Pre-Qin, Han, and Song periods, gradually revealing its rich philosophical connotations (Liu & Wu, 2024). Over time, this observation of nature expanded to encompass concepts of state governance, evolving into an aesthetic philosophical pursuit dedicated to understanding the essence of things. Consequently, the aesthetic thought of HBMAN is not only regarded as a fundamental principle for comprehending the universe and all phenomena but also as a basic trajectory and rule guiding the development of human society. Additionally, it remains an indispensable component of traditional Chinese aesthetic literacy education.

METHODOLOGY

This study falls within the category of fundamental qualitative research and employs an exploratory case study approach (Annette & Kelly, 2019). Its aim is to deeply understand the essence of human behavior, experiences, motivations, and socio-cultural phenomena within the framework of spatial production. The study emphasizes the educational pathways for expanding knowledge or enhancing the aesthetic literacy of contemporary students. This research identifies a clear research subject, taking the alum industrial heritage cultural landscape in Fanshan Town (hereinafter referred to as Fanshan), Lujiang County, Anhui Province, China, as an example, and places great importance on the collection and organization of relevant knowledge materials. Through the authors' years of continuous investigation and field recordings, a systematic collection and organization of text samples related to the aesthetic culture of this heritage place were conducted. These samples were analyzed as evidence in the discovery section, providing clearer support for the research objectives. The field investigation process received extensive support and assistance from various groups, including local residents, the government, and school teachers. The research systematically designs and correlates the operational and implementation logic of the exploratory case study method in four aspects.

Learning Aesthetic Culture from Nature

Many ancient cultures had a conception of space and the cosmos, addressing the significance of space and the relationship between humans and nature (Tuan, 1990). As time passes and cultures intermingle, the relationship between *Homo sapiens* and the natural environment has played a pivotal role in identifying and defining various aspects of the spiritual realm. Humanity has continually sought to understand the universe and find meaning in its own existence (Uhlik, 2009). The Chinese interpretation of the aesthetic thought of HBMAN in spatial production hinges on a profound understanding of the notion of “nature” (Liu & Wu, 2024). Tracing the significance of aesthetic education through the lens of natural spatial production offers potential insights for research discoveries.

True education stimulates a child’s power by fulfilling the requirements of the social context in which the child resides (Dewey, 1897). Learning from nature is undoubtedly an effective approach because nature and the significance attributed to the natural environment are deeply rooted in history, gender, race, and culture (Ewert, 2019). Fanshan boasts rich mineral resources and a long-standing alum mining industrial production history. After more than 1,300 years of extraction and production, alum products have been gradually replaced by new environmentally friendly materials. In February 2001, with the implementation of relevant national environmental policies, Fanshan’s alum mines completed their historical mission and ceased production entirely, turning the area into a cultural heritage place that bears witness to alum industrial space production. Overall, the alum mining industry underwent a transformation from small-scale handicraft extraction to mechanized large-scale industrial production, spanning six significant historical periods. The study encodes and classifies the historical process based on spatial production characteristics, where the aesthetic concepts and attitudes of local people toward nature during different historical stages become important theoretical samples for forming an aesthetic knowledge system (Table 1).

Seizing the Opportunity of the Rise of Experiential Education

Henri Bergson, the French philosopher renowned for advocating the epistemology of intuitive experience, believed that all the great achievements of modern science are the result

of intuitive experience (Jianmin et al., 2017). He posited that “Intuition is the inward movement of consciousness, the inward care and experience of the soul, which directly guides us to the depths of life.” (Bergson, 1912). This study endorses Bergson’s perspective on intuitive experiential education and proposes that universities should implement experiential aesthetic education. The so-called experiential aesthetic education means that educators guide students to enter the aesthetic experience field by creating relevant cultural experience scenes or carrying out a series of experiential activities, awakening self-awareness in programmed immersion close to nature or in direct contact with nature itself (Bergson & Andison, 2010), and engage in reflective expression of values and meanings, thus resolving cognitive conflicts.

In contrast, the advantage of modern experiential aesthetic education lies in its dual focus on both the learning process and outcomes of students. It excels at identifying targeted quality materials from the root of students’ aesthetic literacy issues and distilling valuable aesthetic connotations. “All true education comes from experience (Dewey, 1938).” The toolbox approach with experiential social justice activities has been used to change personal beliefs and values to create a better world (Chappelle et al., 1998). It is commendable that China’s education and cultural sectors have systematically planned and implemented these initiatives. With the rise of tourism, museums, memorials, gardens, and other cultural landscapes in major cities have begun to offer relevant educational resources and services to study tours’ students. However, some local cultural landscapes still hold substantial development potential.

Seeking Suitable Outdoor Experiential Education Resources

In the Fanshan region, efforts are being made on one hand to actively promote environmental management and ecological restoration of the Alum Mine, reshaping the development environment; on the other hand, there is a proactive exploration of new industrial development paths, leveraging its ecological and industrial heritage resources to focus on developing unique industries such as cultural tourism. Currently, the protection and utilization of industrial heritage have achieved significant milestones, with a series of important cultural landscapes beginning to regain their value. In December 2020, the Alum Industrial Heritage was designated as the fourth batch of national industrial heritage, and

Table 1. Historical progression of spatial production in the alum industry heritage place

	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
	683-1919	1919-1949	1949-1978	1978-2000	2000-2020	2020-2050
Six Historical Stages	Feudal society	Semi-colonial and semi-feudal society	Socialist revolution and construction	Economic reform and opening up	New urbanization	Chinese-style modernization
Three Development Phases	Handicraft Production Development Phase		Machines in Large-Scale Industrial Production Prosperity Period		New Productivity Transition Development Phase	
	Deterioration of Livelihoods—Ecological Utilization		Ecological Destruction—Ecological Restoration		Industrial Heritage Place—Ecological Civilization	

local authorities started actively preparing for the application for World Industrial Cultural Heritage status. In October 2021, the Fanshan Historical and Cultural Exhibition Hall was completed and opened to the public, becoming a crucial medium and window for people to understand the millennium-old alum mining culture.

By organizing sample data on cultural landscapes of industrial heritage place, their classification involves the extraction, processing, and utilization of alum stones, encompassing both material and spiritual activities. This includes more than 200 principal cultural achievements such as alum stone mines, production place, related residential areas, transportation networks, and associated artifacts, techniques, and knowledge (Table 2). As the crystallization of local wisdom, the alum cultural landscape not only bears witness to historical industrial activities and technological levels but also directly reflects the local people's values concerning natural laws and humanistic principles. Its aesthetic culture is a crucial component of the HBMAN thought and serves as an excellent resource for experiential aesthetic education.

Refining the Intrinsic Value of Aesthetic Education

Kolb's experiential learning theory posits that "learning is a process in which knowledge is created through transformation of experience" (Sternberg & Zhang, 2001). In the process of experiential aesthetic education, using the history of human interaction with nature as educational material, and emphasizing students' literacy abilities in perception, thinking, analysis, and expression can evoke a deeper interest in learning. Particularly, immersive experiential teaching methods outside the classroom, which allow students to engage with industrial heritage cultural landscapes, walk alongside history, converse with ancient people, and resonate with culture, guide the development of students' aesthetic perspectives through the sharing of real aesthetic experiences. This is crucial for preventing them from adopting extreme views.

Historical place provide opportunities for learning about the past that would normally not be possible in other ways

(Blair, 2016). The alum cultural landscape serves not only as a testament to the industrial activities and technological advancements of various historical stages but also provides an inseparable empirical perspective on the social structures, lifestyles, and cultural values of the time. It possesses an aesthetically authentic, extensive, and diversified educational value.

Taking the cultural landscape of the Chinese alum industry heritage as an example, and integrating China's aesthetic thought of HBMAN in spatial production, this study aims to elucidate the cultural literacy connotations affecting contemporary aesthetic education. By carrying out the aesthetic experience education to students, and then critically examining social justice (Frazer, 2009), this approach is pivotal in solidifying students' aesthetic cultural foundation, correcting their aesthetic values, and promoting the sustainable development of their aesthetic culture. It also prompted the teachers to further consider how to translate it into their classrooms (Bolick et al., 2020).

FINDINGS

In the current context, the emergence of multicultural environmental education has ushered in new perspectives on the aesthetic knowledge system (Running Grass, 1996). Against this backdrop, the application of aesthetic thought in cultural landscapes transcends singular artistic aesthetics, embedding aesthetic value throughout aesthetic practice and its inherent meanings. This fosters an aesthetic cultural model for personalized experience education characterized by diversification. This study also integrates the essential aesthetic literacy that contemporary students should possess, detailed through the four spiritual dimensions of benevolence, diligence, innovation, and harmony. It elucidates the mechanisms by which aesthetic emotions, aesthetic character, aesthetic creativity, and aesthetic ideals function. Furthermore, a knowledge system for the aesthetic literacy of alum culture landscapes, grounded in the theory of HBMAN is constructed.

Table 2. The principal achievements of the alum mine cultural landscape

Aesthetic Element	Sort	Cultural Achievement
Material form	Alum mining facilities and equipment	Beggar's Cave, Big Screen Wall, Two Mountain Adits, Vertical Shaft, Eight Kilns, Alum Crystallization Pool
	Alum mine community and construction	Alum Mine Old Street, Red Building and Cyan Building, Lujiang Alum Mine Guesthouse, Alum Miners' Hospital, Alum Miners' Canteen, Alum Miners' Club
	Alum mine enterprise	Lujiang Alum Mine, Lujiang Alum Mine Rapid-Setting Agent Factory, etc.
Spirit carrier	Policy and system	National system: Alum Monopoly Law, Jiaoyin System, Ticket System, Proagri cultural and Anticommerce, etc. Alum mine system: Administrative Management System, Labor Unions, Production Management System, etc.
	Ancient books and documents	National document: Ancient books and cultural relics, Classic of Mountains and Seas, Shi Ya, Physical Miscellany, Comprehensive Geographical of the Yuanfeng, etc. Alum mine document: Alum Mine Spring and Autumn, The Lujiang County Annals, Alum Mine News, etc. Others: Poetry, Ballads, Dialect, Legend, etc.
	Technology and product innovation	Major technological and product innovations Alum crafts widely used in painting, architecture, landscape and other markets

It is noteworthy that humanity has continuously sought to comprehend the cosmos and find meaning in its existence (Uhlik, 2009). The interpretation of HBMAN hinges on the understanding of the thought of “nature” (Liu & Wu, 2024). Therefore, in the discovery of new knowledge presented in this paper, the aesthetic literacy knowledge system’s relevant cultural theoretical foundations and samples were actively explored and analyzed. These two aspects are mutually conditional and resultant, collectively justifying the rationality and extensibility of the new knowledge discovered.

Aesthetic Emotion Filled with Benevolence

Aesthetic emotion refers to the emotions and attitudes expressed by humans during aesthetic activities. The traditional Chinese thought of HBMAN posits a profound and mysterious connection between humans and nature, viewing them as an inseparable organic whole. The humanistic and compassionate aesthetic emotion is the foundation for maintaining and perpetuating this relationship. Confucius, the founder of Confucianism, was the earliest to emphasize treating nature with a heart of benevolence and integrating oneself into nature. The thought of the HBMAN in spatial production practices across China is subtle yet profound. When this compassionate aesthetic emotion permeates daily life, it subtly shapes the community over time, gradually enhancing the aesthetic literacy and cultural cohesion of the local people. Consequently, it evolves into a vital component of China’s excellent traditional aesthetic culture.

Similarly, the cultural landscape of the Alum Mountain industrial heritage place serves as an aesthetic and emotional bridge that embodies the local thought of HBMAN. Since the Tang Dynasty over 1,300 years ago, the ancestors of this region discovered alum stone here and ingeniously processed it for widespread use in daily life. They were acutely aware that it was the bounty of nature that resolved their survival crises. They diligently protected the alum mines, continually engaging in production and reproduction of space, fostering community civilization, and forming a symbiotic and mutually beneficial relationship with the mines. Particularly in the 21st century, with continuous breakthroughs in industrial production technology, they became aware of the ecological damage caused by over-exploitation, which began to adversely affect the health and survival of the local population. Consequently, they resolutely ceased alum mining and invested substantial resources into environmental restoration and transformative development.

Majestic Residence at the Southern Town, dominating the lake and overshadowing the mountains. A thousand-year-old relic of the Chen era, offering alum through generations (Association, 1990). These preserved poems and ballads deeply and passionately praise the grandeur of nature, expressing their profound gratitude and commitment to safeguarding the natural world.

Of course, this aesthetic emotion manifests not only in the relationship between humans and nature but also in the connections among individuals and the community. To this day, in Xiaofanshan, there remains a cave called “Beggar’s Cave”. According to legend, it was here that two brothers

first discovered alum stone and promoted its healing properties to the surrounding people. Out of reverence, subsequent generations have honored them as “The Ancestor of Alum” and erected temples for worship. This tradition reflects the local people’s respect and admiration for all contributors to the land.

This emotional framework effectively prevents the commercialization of aesthetic activities, fostering a cultural environment conducive to the proliferation of benevolent aesthetic sentiments such as kindness, inclusiveness, and mutual assistance within the Chinese nation. Even during World War II, despite the disruption caused by foreign invasions, locals did not passively cease production. Driven by a sincere care and affection for their families and country, they actively engaged in the fervor of production, ensuring stable alum mining and economic gains.

Therefore, this emotion can effectively avoid the utilitarianism of aesthetic activities, and create a cultural atmosphere for the generalization of benevolent literacy such as kindness, tolerance and mutual assistance of the Chinese nation. Even during the Second World War, despite the interference of the foreign invasion, the local people did not passively stop production, but actively participated in the production boom with the simple care and love for the country, to ensure the stable production of Alum mine and the improvement of economic benefits.

From this perspective, the alum industry cultural landscape serves as a historical lesson on the interaction between local people and natural resources. Through experiential education at the Fanshan Industrial Heritage Cultural Landscape, students can better understand nature’s generosity and selflessness toward humanity. It also allows them to appreciate the locals’ reverence, gratitude, and protective love for their land. Educating for moral and prosocial responsibility necessitates an intentional focus on the development of a set of interrelated values and literacy competencies that are essential for effective citizenship (Reason et al., 2013). This enduring sentiment enables students to break free from mundane mindsets, find solace and strength, enhance their perception of natural beauty, and enrich their spiritual world.

Maintain the Aesthetic Character of Diligence

Aesthetic character is expressed in the stable aesthetic personality and temperament of human beings. The traditional Chinese thought of HBMAN advocates that all things in the universe adhere to natural laws, and humans must possess a diligent aesthetic character to align with these laws, thereby achieving HBMAN. The thought of “Heaven rewards the diligent” (Jung et al., 2011), emphasizes that maintaining a diligent aesthetic character is crucial for realizing personal literacy and societal harmony. Confucian classic, “The Doctrine of the Mean,” elaborates paths to achieve this aesthetic character: Heaven’s decree is called nature, following nature is called the Way, and cultivating the Way is called teaching. The Way is something that cannot be abandoned even for a moment; if it can be abandoned, it is not the Way (Confucius, 2017). This suggests that humans should follow moral laws and cultivate a disposition aligned with

Heaven's mandate, a process requiring relentless effort and diligence.

Over the course of more than 1,300 years of space production at the Fanshan Industrial Heritage Place, the cultural landscape has evolved from nothing to a comprehensive expanse. This transformation reflects the industrious and persistent aesthetic character of the local people and serves as the most direct cultural manifestation of the HBMAN thought. The sounds of metal and stone, resonating clearly. Carving through the primordial chaos of perilous cliffs, chiseling into the unfathomable depths below. The craftsmanship of spirits and gods, with white stones supporting the mountain's skeleton. Twisting hemp into ropes, shaving pine into nails. A swing hanging high on the cliff, monkeys and apes crossing the void with ease (Association, 1990). This is a scene described by the local Qing Dynasty scholar Jiang Kai in his poem, depicting alum miners at work. Though the lines are brief, we can still sense the perseverance and diligent essence that emanates the brilliance of life, even in the harsh mining environment.

The radiance of this spirit is both precious and far-reaching, illuminating the path ahead. It has inspired subsequent generations on this land to continuously challenge and overcome various harsh survival conditions. Initially, an alum mine was merely a cave in the early Tang Dynasty. By the Northern Song Dynasty, it had evolved into one of the five major alum production places in the country. During the Southern Song Dynasty, both production and mining scale reached the national forefront. By the Qing Dynasty, the enterprise achieved a breakthrough from self-sufficiency to exporting products abroad. Entering the 21st century, it realized large-scale, mechanized production and became a key enterprise under the Ministry of Chemical Industry and Anhui Province, earning the title "World Capital of Alum". Under the guidance of the HBMAN thought, the local people have upheld a diligent aesthetic ethos to achieve remarkable deeds, crossing numerous historical milestones that have astonished and impressed the world.

In traditional Chinese society, diligence is regarded as a virtue and a crucial criterion for evaluating a person's character. The aesthetic quality of diligence is not only related to material output but, more importantly, it underscores the spiritual values it represents. It involves transforming the external world and enhancing one's intrinsic literacy. The ultimate goal of education is to enable students to fulfill their lives and lead their lives filled with boundless joy (Kuo et al., 2021). Under this aesthetic value system, people learn to harmonize with natural laws through diligent work and interaction with nature. This process enables continuous self-improvement, leading to comprehensive personal development, spiritual fulfillment, and a sense of accomplishment.

Hence, from the perspective of the educational value of experiencing the alum industry cultural landscape, this teaching method positively influences students' behavior and moral awareness, thereby improving their attitudes towards social responsibilities and civic participation (Halfacre et al., 2006). It enables students to contemplate the meaning of human existence on a higher level, fostering more complete humanity, greater character, and well-rounded literacy.

Expertise in Innovative Aesthetic Wisdom

Aesthetic wisdom reflects humanity's ability to perceive beauty in nature, society, and beyond. The Chinese traditional thought of HBMAN posits that through perception, imagination, expression, and creation, humans interact with nature. Their behaviors and attitudes can influence natural and even cosmic order, shaping their understanding and creativity regarding natural beauty in the process. For instance, the Book of Documents records the legend of Yu the Great controlling floods through river management (Chen & Wang, 2022). Yu's successful mitigation of natural disasters not only highlights ancient innovation in transforming nature but also exemplifies aesthetic wisdom and courage. This perspective is epitomized by Dong Zhongshu's teachings during the Western Han Dynasty, asserting, "Heaven can decide man; man can influence heaven. Heaven and man belong to the same order, thus unifying them" (Ge, 2020). He acknowledged that nature is the greatest creator while affirming human agency in aesthetics, emphasizing that individuals are not mere passive recipients of beauty but active creators and expressers of it.

Throughout the historical process of production in Fanshan, the people have maintained a respectful attitude toward nature without falling into blind worship or stagnation. Influenced by traditional education rooted in the thought of HBMAN, they have actively explored and demonstrated the courage and strength to transform nature. Before the founding of New China, the methods of mining alunite were extremely primitive. Workers mainly relied on ropes tied around their waists, with one end secured at the mountaintop and the other end suspending their bodies over the cliff. They would then search for suitable rock cracks, drive in rows of sturdy wooden stakes with great effort, and repeatedly pry until the ore fell off (Figure 1). This mining technique was labor-intensive and yielded little benefit. Due to the lack of effective safety measures, falling ore and cliff collapses frequently resulted in significant casualties, including incidents of workers being injured or killed by falling rocks. Today, the "Great Wall of Fanshan" relic located in the Xiaofanshan mining area stands as historical testimony to these so-called "life-and-death stakes."

After the founding of the People's Republic of China, the Alum Mine benefitted from comprehensive and bold innovations across five systems. This effectively motivated workers to embrace creativity and innovation, leading to the industrialization of mining machinery and equipment. The production techniques for alum were rapidly innovated,



Figure 1. Scene of alum mine workers extracting alum
Source: Provided by the alum mountain history and culture exhibition hall

resulting in significant advancements in both mining and refining technologies. Premium potassium alum and premium ammonium alum were awarded the “Quality Product” title by the Chinese Ministry of Chemical Industry, making indelible contributions to industrial development and economic prosperity.

The cultural landscape of the Fanshan Industrial Heritage Place, as a historical product of local innovation and aesthetic wisdom under the thought of HBMAN, not only showcases the past capabilities of people in developing and utilizing natural resources but also provides an aesthetic foundation for the creative conduct of contemporary spatial production activities. In the context of sustainable development, the people of Fanshan continue to exhibit innovative aesthetic wisdom through ecological restoration projects, actively improving environmental quality, developing eco-agriculture, and hosting cultural events. They are transforming the area into a beautiful, livable industrial cultural tourism town. In recognition of the collaborative innovation efforts of the local government and residents, Fanshan has received numerous honors, including “Civilized Township,” “Ecological Township,” and “Millennium Ancient Town.”

The historical development of the alum industry cultural landscape not only records the hardworking and kind nature, as well as the resilience of the local laborers, but also reflects the local people’s pioneering spirit and innovative aesthetic intelligence. Educational approaches in aesthetic literacy should extend beyond increasing students’ knowledge about themselves and the environment to focus on promoting pro-social and pro-environmental behavior change, thereby encouraging students to serve as social and environmental change agents (Breunig, 2013). Considering the potential of experiential education within the alum industry cultural landscape, helping students understand the significance of innovative aesthetic intelligence can enable them to recognize their own strengths, and take pride in contributing to broader human civilization and societal prosperity.

Pursuit of Harmonious Aesthetic Ideals

The ideal of aesthetics reflects humanity’s pursuit and aspiration for beauty, representing the highest realm of the HBMAN thought. In Chinese tradition, this theory views the cosmos and human society as an inseparable whole, advocating that human actions align with natural laws and cosmic order to achieve long-term harmonious coexistence with nature. “Draining the pond to catch fish, won’t you gain? But there will be no fish next year; burning the forest to hunt, won’t you gain? But there will be no animals next year.” Philosopher Lü Buwei used dialectical methods to explain the utilitarian principles of aesthetic ideals, promoting long-term planning in all endeavors. Since ancient times, the HBMAN thought has valued and upheld the interests and values of the “community,” highlighting the importance of public interest and spiritual strength (Lü et al., 2022), educating people to continually improve themselves in aesthetic activities, and to pursue and realize the standard or realm of harmonious beauty between heaven and man.

Pursuing the aesthetic ideal of harmony is initially formed through certain aesthetic experiences and habits, and the specific meaning of “harmony” evolves with societal development. For instance, during the feudal period with low productivity, social unrest, and heavy taxes, locals sought survival by laboring in alum mining, with the ideal of peace and disaster-free living. In the early years of the People’s Republic of China, with societal stability and economic recovery, people aspired to take control of their destiny and achieve prosperity (Figure 2). Entering the era of intelligence, they are now planning for sustainable development, aiming to build ecological, livable, and beautiful homes. Generations have preserved this simple aesthetic ideal through cultural creations in poetry, architecture, and cultural performances.

However, the realization of aesthetic ideals is not always smooth and straightforward. The relationship between “heaven” and “man” is a dialectical one of mutual struggle and interdependence. On the journey to pursue harmonious aesthetic ideals, they consistently resist the forces of nature and oppose malevolent powers. They contend with natural disasters and class oppression, all while striving for the rights of freedom, equality, and democracy. Countless heroes have emerged, leaving behind many poignant and admirable stories.

The ideal pursuit of “Harmony with Nature” aligns closely with the goals of building contemporary ecological civilization, sharing similar foundations and objectives (Liu & Wu, 2024). In 2021, the Alum Mine Cultural Tourism Project was launched with a total investment of 2.5 billion yuan. This project plans to leverage the rich resources of alum industrial heritage, utilizing digital means to integrate industrial heritage with cultural memory, ecological landscapes, cultural tourism activities, and health and wellness. This approach aims to promote multi-sectoral integration under the “Culture and Tourism+” model, transitioning from a single economic source to comprehensive development. Local government officials acknowledge the complexity, difficulty, and uncertainty of this plan but also see it as a beautiful vision. They believe that as long as they remain hopeful and motivated, they will persist in their pursuit driven by the ideal of harmonious aesthetics.

The cultural landscape of the Fanshan Industrial Heritage Place serves as a spiritual cornerstone for the local



Figure 2. Industrial alum mine production facility
Source: Provided by fanshan historical and cultural exhibition hall

population's pursuit of harmony, embodying the thought of HBMAN. It inspires the enduring human quest for beauty and fuels the aspiration for a better future. From an experiential literacy education perspective, the Fanshan Industrial Cultural Landscape harmonizes local aesthetic ideals with reality, juxtaposing beauty and ugliness, truth and falsehood, good and evil. This approach aids in guiding students to confront the contradictions of real life, encouraging them to strive courageously for a brighter future. If students develop in their moral identities and commitment toward prosocial action as a result of their college experiences, they may also develop a more meaningful theory of life (Hudson & Brandenberger, 2023).

DISCUSSION

From a broader perspective, the inclusion of Fanshan Alum Mine in the list of national industrial heritage place signifies not only the official recognition of the historical and cultural value of the alum industry in the region but also implies that these heritages will receive support at both local and national levels, including funding, restoration, and preservation measures. This is highly beneficial for the comprehensive development of local education, tourism, and cultural dissemination, enhancing public recognition and respect for the value of industrial history and cultural heritage. For instance, aesthetic literacy as both a pragmatic need and area of research interest is being explored increasingly in experiential educational (Frazer, 2009). The findings of this research establish the place as an excellent base for contemporary students to engage in outdoor aesthetic learning. Additionally, these four aesthetic dimensions facilitate the reproduction of local aesthetic spaces.

Chinese scholar Zhou Jianmin believes that traditional literacy education has evolved into a form of indoctrination by educators, which manipulates learners. This is the primary issue historically present in literacy education and the underlying reason it has struggled to progress. In contrast, intuitive experience education emphasizes the cultivation of correct judgment, opposes utilitarian and authoritative pragmatism, and opposes mechanically copying and rote learning (Jianmin et al., 2017). The alum industry heritage cultural landscape, as a specific educational material of human aesthetic creativity, reflects a state of hopeful knowledge recollection. Experiential learning activities encourage learners to be self-teachers in the process of exploration (Kolb, 2014). The alum industry heritage cultural landscape not only helps students draw lessons from historical reflections but also inspires them to absorb inspiration, establish, and develop a proper aesthetic view that aligns with the spirit of the times (Warren et al., 2014).

Of course, we must clearly recognize that the thought of HBMAN also has its limitations. This makes all outdoor education centered on multicultural education, which benefits society (Warren et al., 2014). The education of new aesthetic literacy for contemporary students must not overlook the cultural exchanges occurring within the context of globalization. Western human-centric ideas, which emphasize the active implementation of human aesthetics, offer valuable



Figure 3. The fushan historical and cultural exhibition hall established

Source: Provided by fanshan historical and cultural exhibition hall

insights worth exploring. Additionally, The work of aesthetic literacy education is the work of a lifetime that requires careful, invested effort and a constant self-examination (Yomantas, 2021).

CONCLUSION

An exploratory case study method that learns from history and nature treats culture and ideas as sample categories, encoding and classifying historical processes based on specific spatial production characteristics. In various historical stages, the local people's aesthetic perceptions and attitudes toward nature become important theoretical samples of the aesthetic knowledge system. The study emphasizes the process of interviews and sample research, providing firsthand documentation and in-depth insights into the cultural landscape of industrial heritage place, thus enhancing the credibility and reliability of the research. However, the study focuses more on the construction of the aesthetic literacy knowledge system, a research goal that is highly challenging. The related cultural theoretical foundations and textual samples must be both conditions and results, jointly demonstrating the rationality and extensibility of new knowledge discoveries.

The industrial heritage cultural landscape is not only a carrier of historical traces from the industrial era but also an important medium for conveying spatial production concepts and aesthetic education. The primary research objectives emphasize and achieve the exploration and utilization of the educational potential inherent in industrial heritage cultural landscapes. This research highlights the significance of integrating multidisciplinary knowledge, including aesthetic theory, cultural landscape preservation, experiential education, and sustainable development. The research results indicate that the discovery of the concept of harmonious coexistence between humans and nature in spatial production provides a theoretical basis for utilizing industrial heritage cultural landscapes as high-quality resources for aesthetic literacy practice education. This is especially significant for constructing an aesthetic literacy knowledge system, offering students engaging and profoundly educational learning materials in the early stages of aesthetic education and teaching. In 2021, the Fanshan Historical and Cultural Exhibition Hall was established, and over the years, an increasing number of young people have visited for study purposes, indirectly

validating the consistency of our research objectives and conclusions (Figure 3). However, the extent of its impact on young people's aesthetic literacy education is another new research objective of this project, which requires extended evaluation over a more extended period.

In conclusion, the aesthetic cultural content of the alum industry cultural landscape pertains to various aspects such as people's lifestyles, environmental construction, social trends, and artistic creation, making it an excellent live teaching material for aesthetic literacy education. Though its content is sufficiently rich, it remains purposeful and selective in practical application. Well-crafted aesthetic literacy education has its own enhancing effect on best practice pedagogy (Lovat & Clement, 2016).

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