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Nature, Engagement, Empathy: The *Yijing* as a Chinese Ecological Aesthetic

As a fundamental aesthetic concept, the ancient principle of the *yijing* (意境) has played a crucial role in traditional Chinese philosophy, literature and art since the eighth century CE. Defined as 'inner consciousness' by early commentators, the *yijing* couples the artist's inner emotional realm to objects or scenes in the external world. In this paper, we conceptualize the *yijing* as an ecological aesthetic (or *eco-aesthetic*) and distinguish it from an *environmental* aesthetic. In particular, we focus on two dimensions of the yijing: the ideal of subject-object correspondence and the capacity of the yijing to support empathic identification with non-human beings and the landscape. Given the intensity of environmental issues in contemporary China, from atmospheric pollution to biodiversity decline (Shapiro, 2016), an eco-aesthetic grounded in the yijing unfolds possibilities for ecological sustainability, ethics and well-being. We develop these assertions in the context of a growing body of research into Chinese environmental aesthetics (for example, Chen, 2015). Short case studies from urban planning, environmental conservation, and the creative arts enable us to discuss the yijing as a practical approach to environmental concerns in China.

The poet Wang Changling (王昌龄) first mentioned the yijing in his work *Shige* (*The Poetic Style*) (诗格) in the eighth century CE during the Tang dynasty (618–907). As described by Wang and subsequent commentators, the yijing emphasises human emotional experience—or internal spiritual expression—and the attainment of harmonious interrelationships between a subject (person, appreciator, percipient) and an object (scene, element, organism). Rather than constructing a sense of detachment, speculation and distance between viewer and object, the yijing encompasses the interactions between human beings and the natural world on multiple levels: spirit, mind, body, senses, matter. Yet, despite what we see as its inherent ecological characteristics, the yijing has not previously been examined

by theorists from the perspectives of eco-aesthetics or ecocriticism. Hence, we situate our exploration of the yijing in these fields that investigate human-nature relations as well as the representation of nature in culture, art and literature.

The first section of the paper differentiates between the yijing and the closely related, but more popularly known, divinatory text *I Ching* (易经). These two traditional philosophies share a common root in Taoism, but have been conflated by commentators due to the imprecision of the *Pinyin* (拼音) system of transliteration. The second section presents a critical overview of historical sources focusing on two aspects of the yijing: (a) subject-object correspondence (or what we call *engagement*, following the work of Arnold Berleant and others); and (b) empathic identification (or *bio-empathy*). This section includes our analysis of key philosophical works ranging from the Tang dynasty to the twentieth century, as well as paintings, illustrations, calligraphy and poetry of relevance to the history of the yijing. A key example is the painting 'Walking a Mountain Path in Spring' by Song dynasty artist Ma Yuan (马远). The third section shifts to current ideas in Chinese environmental aesthetics as well as the Western aesthetic principles—specifically recent debates about engagement and bio-empathy—that we argue are essential to framing the yijing as ecological. In concluding, the final section applies the yijing as an eco-aesthetic to a cross-section of real-world case studies of pressing importance to environmental sustainability in contemporary China.

The *Yijing* and the *I Ching*: Discerning Between Taoist Philosophies

Before theorizing the yijing as an eco-aesthetic, it is crucial to point out that the ancient Chinese philosophical system is related, but differs, to the *I Ching*, known as the *Classic of Changes* or *Book of Changes*. This text originated in the Western Zhou era dated approximately 1000 to 750 BCE (Smith, 2012). Due to slippages of translations, commentators have tended to present the yijing as interchangeable with the *I Ching*. This

situation can be attributed to the fact that the *I Ching* pronunciation reflects the Wade-Giles (or Wade) system used principally in translations published in Western countries before 1979 after which it was replaced by the Pinyin (拼音) standard (Wei, 2005). Developed by the British sinologist Thomas Wade in the mid-1800s, Wade-Giles is a Romanisation system applied specifically to Mandarin Chinese. It was later enshrined in Herbert Giles' classic *Chinese-English Dictionary*, published in 1892, as the standard for Chinese-to-English translations (Giles, 1892). Although yijing and I Ching share characteristics in common, owing to their roots in Taoism, they are two separate systems, each bearing distinct precepts as denoted by different Chinese characters.

However, under the Pinyin system currently in use, both concepts tend to be rendered as 'yijing'. The discrepancy between recent RomaniSation and the original signification stemming from Wade-Giles has perpetuated a conflation of meaning. Most recent English translations of Chinese texts, as well as critical secondary literature written in English, reproduce the Pinyin convention. For example, Richard Joseph Smith in his historical study *The I Ching: A Biography* (2012) indicates his preference for the term *yijing*: 'I have retained this long-standing usage [*I Ching*] in the title of this biography, but in the body of the book I have rendered it according to the more current Pinyin system of transliteration: hence, *Yijing*' (Smith, 2012: xix). Even the *Encyclopædia Britannica* translates *I Ching* as 'yijing', emphasising that the ancient text has been used for practices of divination (Encyclopædia Britannica, 2016). Indeed, the concept of *I Ching*, sometimes transliterated as *Yi Ching* (Cooper, 1972), is similar to Western divinatory systems (Karcher, 1999). Of note is geomancy as a method of divination involving the interpretation of soil, rock and sand patterns. Historically, this method has occurred in the practices of indigenous cultures, ancient Greece, the Middle Ages, and the Renaissance. Also termed *Zhouyi* (周易), the *I Ching* is regarded as an essential part of traditional Chinese divination. In brief, the system uses

linear signs as oracles that can be combined as eight basic symbols, each with various meanings and symbolising different potential outcomes for the individual who has 'thrown' (or 'tossed') a medium (e.g. earthen or organic materials, such as leaves of the herb yarrow—*Achillea millefolium*—and animal bones, to name a few) (Wilhelm and Wilhelm, 1960).

Although it is often characterised as a divinatory modality, the I Ching is a broadly ranging philosophy of classic Chinese culture focused on the complementary forces of *yin* (阴) and *yang* (阳). The dynamic tension between yin and yang serves as the basis for the emergence of the world and for all phenomena that human beings perceive. Figure 1, comparable to a diagram from Jean Cooper's popular book on Taoism (Cooper, 1972), depicts the trigrams, or *Ba Gua* (八卦), termed *Pa Kua* in the Wade-Giles system. In the middle of the schematic is *taiji* (太极) (the great ultimate) and *wuji* (无极) (the great void).

Figure 1. Representation of *Pa Kua* or *Ba Kua* (八卦), meaning 'eight trigrams'. Credit: Benoît Stella (BenduKiwi) (CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=1206741)

The eight trigrams shown in Figure 1 constitute the basis for the sixty-four hexagrams. Each trigram refers to a chapter heading within the *I Ching* and 'represents a force in nature, […] necessarily partaking of the *yin-yang* principle [that is] is either passive or active' (Cooper, 1972: 42). The trigrams constantly react in response to changes in the world and reflect 'the

whole realm of phenomena and all the antinomies' (Cooper, 1972: 42). This interplay between *taiji* and *wuji* is the basis for all internal and external changes, and ultimately seeks dynamically harmonious states between the positive and negative aspects of individuals' lives in a mutable world (Grange, 2011).

With their origins in traditional Chinese philosophy, the yijing and the I Ching do share some obvious similarities. For example, the complementarity of yin and yang (evident in the dynamics between taiji and wuji in Figure 1) parallels the expression of yijing in the creative tension between xu (void) and shi (reality). However, yijing is more strictly a concept of aesthetics that attends to the emotional expression of the artist through many forms of art including painting, calligraphy, poetry, literature and music. In traditional Chinese thought, an artwork can be considered ideal if it evokes yijing—or the artist's inner emotional landscape in relation to external natural objects. Hence, yijing is a mode of representing immersive and empathic experience but also a catalyst for such experience in the world. This artistic striving toward harmonious states between subjects and objects is evident in traditional Chinese water and mountain paintings, as discussed in the next section. In sum, the yijing is not a divinatory system like the I Ching; moreover, its creative principles are not necessarily those shared by the I Ching as theorised by scholars over many centuries.

The *Yijing* in Traditional Chinese Art, Calligraphy, and Poetry

Traditional Chinese aesthetics arose at the crossroads of Buddhist ideas, particularly those coming out of Zen, and Taoist cosmology, which, in its attempt to make sense of the complex phenomena of life, comprehends natural objects in terms of eternal cycles of transformation (Inada, 1997). Taoism evolved from the *I Ching* approximately between 1000 and 750 BCE, but later diverged from the teachings of Confucius (551–479 BCE). Its

principal text became Laozi (老子)'s *Tao Te Ching* (道德经) written during the sixth century BCE. Interestingly, Zen or Chan Buddhism—a school of Mahayana Buddhism—began in the sixth century CE in China, slightly prior to the formulation of the yijing, but later spread to Vietnam, Korea and Japan where it took root. As the foundational Chinese aesthetic concept, the yijing not only concerns the fusion of emotion, spirit and the perceived world, but also the expression of an individual's mode of engagement with nature and the cosmos, leading to intellectual and spiritual realisations. In other words, as we argue later, the yijing is intrinsically an eco-aesthetic, although it has not ostensibly been conceptualised as such by scholars of environmental aesthetics or Chinese philosophy.

Moreover, the yijing embodies the intimate connection between works of art and the evolution of Chinese understandings of life. Drawing less from the domains of religion, philosophy and science than Western traditions, these understandings, including those of Taoism, evolved more directly from artists and poets through the ages (Rowley, 1959). The yijing differs sharply to some of the predominate Western aesthetic paradigms, such as the Kantian sublime, that privilege the attainment of empirical knowledge and a reductionistic approach to what is apprehended (Giblett, 2011: 63; Pohl, 2006). In contrast, the traditional Chinese aesthetic values immersive states and empathic identification towards liberation from object-subject oppositions and human-nature binarisms. Changling first summarised the main principles of the yijing in *Shige*, or *The Poetic Style*, around the eighth century CE (Tang, 2014). Wang theorized that 'poetic style' (a phrase analogous to the Greek term for phenomenal emergence—*poiesis*, or 'bringing forth') has three *jing* (境), or realms. These are *wujing* (物境) (related to natural scenes), *qingjing* (情境) (related to emotion), and *yijing* (意境) (related to inner consciousness) (Ruan, 1995). The three *jing* are hierarchically arranged. The highest, the yijing, builds upon the wujing and qingjing. Consequently, the attainment of

inner consciousness as yijing necessitates the correspondence of emotional topographies to the perceived world.

Since its conception, the yijing has evolved in many fields through the expansion and reinterpretation of its meaning. The yijing focuses on personal emotion and individual perception but is defined or explained variably according to different fields. Traditionally, the yijing related to works in the fields of painting, calligraphy and poetry. However, between the nineteenth and twentieth centuries, the scholar and poet Wang Guowei (王国维) (1877–1927), considered one of most important Chinese commentators on aesthetic philosophy, expanded the applicability of the yijing to other areas of the liberal arts, including operas and novels (Bonney, 1986). In the twentieth century, another influential aesthetician, Zong Baihua (宗白华) (1897–1986) expanded the yijing to encompass all artistically related fields. In particular, he combined the traditional application of the yijing to paintings, calligraphy and poetry with modern architecture, sculpture and gardens (Zong, 2014). Trained in German aesthetics, Zong argues that the primary distinction between Western and Chinese aesthetics derives from differences of worldview (Peng, 2010). In general, traditional Chinese aesthetics embraces fusion (or 'the oneness of humans and nature'), whereas the Western paradigm demarcates sharply between subjects and objects (Peng, 2010: 142). According to contemporary scholar Peng Feng (彭锋), 'Chinese aesthetics regards the highest aesthetic ideal as *yijing*, a realm in which subjective feeling integrates with objective scene and results in a harmonious unity' (Peng, 2010: 142–143).

Although the yijing has a history of over one-thousand-two-hundred years, there has nevertheless been no exact consensus amongst scholars on its meaning. As Peng suggests above, the concept tends to be regarded as the highest criteria for the evaluation of traditional Chinese literature and art. In the scholarly areas of language and literature, the yijing has been described as 'the principles of illusion' (Liao, 2011: 13). In art, the yijing denotes an

'exceptional state of mind' or an 'artistic conception' (Ye, 1995: 260). According to Li Zehou (b. 1930), another important Chinese aesthetician, the yijing parallels the Western concept of 'empathy' and involves 'the melding of the appreciating (or creating) self with the appreciated (or created) object' (Li, 2010: 152). In Chinese thinking, the phenomenon of 'empathy' is known as *qingjingjiaorong* (情景交融), which signifies the interpenetration of feeling and scene, or, to put it differently, the unification of perceiving self and perceived object. The term consists of two parts: *qing* (情), which refers to 'emotion'; and *jing* (景), which refers to 'scene'. In other words, the aesthetic state of yijing involves the integration of internal feeling and external scene. Li further explains that the fusion of feeling and scene occurs when:

> the appearance or action of the object calls forth my mental and emotional activity, which is subsequently dissolved in the full concentration of my faculties in the process of appreciation or creation, so that it is eventually replaced by the features and actions of the object, resulting in the unity of my own subjective emotions with the objective form. (Li, 2010: 152)

Yijing emerges at the intersection of feeling and scene. As Li continues, yijing is an aesthetic disposition in which 'reason dissolves completely into the emotions and imagination, and loses its independent character to become a sort of unconscious or nonconscious player' (Li, 2010: 153).

Zong Baihua argues that the essence of yijing is the unification of *xu* (void) and *shi* (reality)—the two complementary aspects of traditional Chinese aesthetics (Zong, 2005). These two aspects exist in dynamic interrelation and generate an integrated whole, the original source of which lies in the Taoist concepts of yin and yang. The concept of xu denotes emptiness, nothing or void. It comprises xu and wu (无), which are often presented together in the longer form of the term, *xuwu* (虚无) (Fan, 2010). The concept of shi can be

translated as fullness, substance or reality. However, a prioritisation exists: xu is considered a more potent source of vitality and emergence than shi in traditional Chinese thought, as it was regarded as a key to understanding the universe and the substrate of reality (Cheng, 1994). Understood as a universal source, xu is an essential Taoist principle; out of xu emerges shi. Cheng further explores xu in its practical application to artistic practices, but also at the philosophical level, particularly the concept's influence on Chinese painting (Cheng, 1994). He explains that, in the process of making a painting, xu is required at every step including in the basic brushstrokes and the overall composition. Xu is 'a sign among the signs, providing the pictorial system with its effectiveness and unity' (Cheng, 1994: 64).

Furthermore, visual and poetic rhythm is important to traditional Chinese aesthetics. The achievement of rhythm depends on the artist's engagement with xu and shi as reflected in features such as the arrangement of brushstrokes. In fact, Chinese artworks often incorporate poetry as an expression of the artist's inner state. In the form of calligraphy, the poem is typically included within the frame of the painting rather than apart from the scene. The attainment of yijing involves the artist striving to match the content of the poem to that of painting. For example, twelfth-century Song dynasty court painter Ma Yuan's ink-on-silk painting, 'Walking a Mountain Path in Spring' (山径春行图), combines poetic rhythm and an 'ideal' pictorial composition as reflected specifically in the use of diagonals with willow branches overarching a stream on the left side of the painting (Tregear, 1980).

Figure 2. ‘Walking a Mountain Path in Spring’ by Ma Yuan. Credit: Public domain via Wikimedia Commons.

In the painting, the scholar’s contemplative outward stare is in step with the movements of orioles as a boy trails behind him, carrying a lute. The mountains of the background fade into the fog as one oriole perches on a willow branch while the other ascends, wings outstretched, through the empty space of the upper right quadrant of the composition. The expression of yijing in this work consists of xu (emptiness)—in the adumbration of the mountain behind the willow branches—set in complementary relation to shi in the strolling scholar, trailing boy, the lute, willow trees, orioles, stream bank and other distinct pictorial features. Taken together, the elements constitute a scene of beauty, peace, unity, affect and intensity, as expressed by the Song dynasty emperor Ningzong (宁宗) in the poetic couplet written in calligraphy at the top right of the frame: ‘Brushed by his sleeves, wild flowers dance in the wind / Fleeing from him, hidden birds cut short their songs’ (Kleiner, 2010: 66). Ningzong’s short poem calls attention to the harmonisation of subject (scholar) and object (nature), but also the creative tension that gives rise to the world. Whereas the flowers respond fervently to

contact with the scholar's sleeves, which drape organically toward the ground, the two orioles cease their singing and flee. In other words, the scholar is entangled with elements and other beings in the springtime mountain environment; he affects non-humans in ways that signify his co-constitution with all that he perceives. Other commentators have interpreted the painting in more metaphorical and, even, political terms. For instance, the use of the feminised symbols of birds and flowers represents a woman (or women) in a palace stirred by the emperor's presence (Tregear, 1980).

'Walking a Mountain Path in Spring' evokes yijing through resonance between natural imagery, human subjects and poetic calligraphy. The work also promotes a sense of cohesion between the feelings of the viewers (or readers) and the natural scene that Ma Yuan depicted over eight-hundred years ago. Hence, there is cohesion between viewer, subject (scholar) and object (birds, flowers). As audiences appreciate the painting and reflect on the poem and calligraphy, they are presented the opportunity to tap into the emotional world of the artists. As shown in this work, yijing signifies how a landscape representation can achieve verisimilitude with forms observed in natural environments while, at the same time, disclosing the spiritual and emotional relationships between nature, humans and non-humans. The Ming era philosopher Wang Fuzhi (王夫之) invoked the *yijing* ideal when he stated in the 1600s that 'a phenomenon is created from emotion [qing or 情], and emotion coheres with the phenomenon' (qtd. in Chiu, 2005: 16).

The yijing has similarly been a formative aesthetic principle in traditional Chinese poetry. The correspondence between emotion and scene has been integral to the generation of yijing in poetic forms over hundreds of years (Tang, 2014). The nineteenth-century scholar Wang Guowei understood the essence of poetry as the interpenetration of *yi* (idea) and *jing* (realm); he assessed the merits of verse and the skill of poets in terms of union between emotion and scene, or *qingjingjiaorong* (Tang, 2014: 190). Contemporary commentator Tang

Yanfang (唐艳芳) characterises the role of the yijing within traditional Chinese poetry as a dialectic between ‘pictorial concreteness’ and ‘purposeful semantic ambiguity’ reflecting the dynamics between xu and shi (Tang, 2014: 191).

An example from the poetry of Wang Changling is illustrative of yijing in verse. His poem ‘The Myriad-Year Tower’ opens with the lines ‘Lofty above the river, the Myriad-Year Tower / How many thousand autumns has it braved? / Year after year there’s joy in seeing the mountains endure / Day after day there’s grief in watching the water just flow’ (Changling, 1976: 114, lines 1–6). Immediately, modern-day readers might be confronted by the poet’s surprising empathic identification with a ‘tower’—presumably a human-constructed element that has become part of the natural landscape by virtue of its age, history and heritage. Without an intimation of reserve or distance, Wang penetrates the affective terrain of what he apprehends—an ancient feature in an even older setting—rendering it closer both to himself and his audience. Wang expresses the joyous state of the tower: an inanimate object that witnesses the mountains unyielding season after season despite the inherent mutability of the landscape. In contrast, the tower expresses melancholy vis–à–vis the murky, sluggish, intermittent flow of the river. These correspondences between the inner domain of the poet and the outer world of nature involve antithetical emotional states that cohere through the yijing. ‘The Myriad-Year Tower’ concludes with the lines ‘Why did the monkeys leave the evening mountains? / The cormorants aimlessly drift around the cold island / Who can bear to climb and look into the clouds and mist? / Toward evening the vastness stirs the traveler’s grief’ (Changling, 1976: 114, lines 13–16) echoing Wang Fuzhi’s assertion that ‘emotion coheres with the phenomenon’ (qtd. in Chiu, 2005: 16). Rather than contemplative distance between a perceiving subject and a perceived object, there is an overarching sense that the poet has broken through discrete boundaries through the aesthetics of the verse.

Contemporary Chinese Ecological Aesthetics: Subjects, Objects, and Empathy

The previous section suggested that the yijing—as it has been interpreted by scholars and put into practice in works of art since the eighth century CE—can be theorised from a contemporary standpoint as an ecological aesthetic *avant la lettre*. Reflecting ideals of empathic identification and engagement between subjects and objects, the yijing promoted awareness of multispecies relationships and natural elements well before the German scientist Ernst Haeckel devised the term *ecology* in 1866. In further elaborating our assertion, this section will review ideas in the area of contemporary Chinese ecological aesthetics, with attention to the works of Chen Wangheng (陈望衡) and Cheng Xiangzhan (程相占), as well as Western aesthetic models, including Arnold Berleant's work on engagement and Vischer, Nagel and Callicott's conceptualisation of *bio-empathy*. We suggest that the values of subject-object engagement and empathic identification—as embodied in the yijing—can advance sustainability, ethics and well-being for all beings.

Chen Wangheng's book *Chinese Environmental Aesthetics*, recently translated to English, provides a cogent account of the importance of the natural world in sino-aesthetics (Chen, 2015). In his historical overview, Chen alludes to the Tang poet Liu Zongyuan (柳宗元) (773–819) and the Song poet and painter Su Shi (苏轼) (1037–1101) as prominent early environmental aesthetics scholars. Traditional Chinese theorists conceived of the appreciation of beauty in nature as the highest ideal humans and art can strive to attain. In their views, such appreciation leads to harmonious states between humans and nature as denoted in the Chinese term *tianren heyi* (天人合一), which comprises three meanings: *ziran* (自然) (natural world or what is self-so), *tao* (道) (truth of nature), and *shenling* (神灵) (divine being) (Chen, 2015: 11–12). The aim of art, poetry, architecture, urban planning and other creative practices should be to express yijing—characterised by Chen as 'aesthetic feeling' or the 'fluid interdependence between perceiving subject and perceived object' (Chen, 2015: 151).

Images inspired by the yijing, such as Ma Yuan's 'Walking a Mountain Path in Spring', correlate to the artists' emotions, feelings and thoughts about nature. Similarly, the Tang poet Sikong Tu (司空图) (837–908) described the condition of correspondence as 'images beyond the image' (*xiangwaizhixiang*) (象外之象) or 'spirit beyond taste' (*weiwai zhizhi*) (味外之旨) (qtd. in Chen, 2015: 152). Chen goes on to suggest that the traditional Chinese aesthetic consciousness of yijing can be applied in contemporary contexts to develop sensitive and systematic approaches to environmental issues. Promoting greater awareness of place and belonging, ecological aesthetics can complement the purposes of environmental conservation, resulting in what Chen refers to as 'aesthetic environmental protection' or *shenmei de huanjingbaohu* (审美的环境保护) (Chen, 2015: 181).

In the 1990s, Chinese environmental aesthetics started to gain traction as a philosophical area with the publication of Cheng Xiangzhan's *Chinese Environmental and Aesthetic Theory* (1991). Drawing from Chinese and Western models, the work of Cheng aims to strike dialogue between eco-aesthetic ideas (Cheng, 2009). In an article from 2013, Cheng refers to the 'aesthetic intersubjectivity' of early Taoist texts—such as *Zhuangzi* (庄) from the Warring States era (476–221 BC)—that emphasise the intrinsic value of non-humans and recognise their right to live and flourish (Cheng, 2013a). He postulates that the cross-fertilisation of ecological aesthetic ideas and approaches might help to ease some of the long-standing conceptual delineations within Western models that effect subject-object binarisms and propound a dominant view of nature as apart from humanity. In the traditional Chinese appreciation of nature's vitality (*shengqi*) (生气) and spirit resonance (*qiyun*) (气韵), 'the perception of a landscape is not simply the awareness of scenery but of the complex and dynamic fields of energy transformation that are present' (Cheng, 2013a: sect. 4, para. 5).

Cheng discerns between *environmental aesthetics* and *ecological aesthetics*. He argues that Western environmental aesthetic scholarship has privileged the appreciation or

enjoyment of the environment, the perception of beauty, and the distinction between art and nature as objects of aesthetic attention. Although it does not necessarily contest the focus on appreciation and beauty, ecological aesthetics, in contrast, prioritises awareness of nature, species, elements, materialities, cycles, flows, patterns, interactions and issues (Cheng, 2013b). In Cheng's view, ecological aesthetics must attend to the global environmental crisis by grounding models of appreciation in ecological ethics, using knowledge of the natural world to vitalise the imagination and educe the emotions, and countering the biases of aesthetic models that place human appreciation well above the value of other beings, elements and things (Cheng, 2013b: 221–222). In other words, an ecological aesthetics resists an aesthetics of human exceptionalism while aiming to promote ideals of harmony, unity and dynamic interrelation between beings.

For philosopher Arnold Berleant, an ecological aesthetics of engagement reflects notions of interdependence and inclusivity originating in the biological models of ecology (Berleant, 2012). In particular, an eco-aesthetics for Berleant takes four factors into consideration: environment, aesthetics, ecology, and experience (Berleant, 2012: 118). Notably, *environment* and *ecology* are discrete terms with unique significations, in Berleant's view. Ecology transforms environment from a visually appreciated scene—often likened to art—to a 'complex composed of interacting, interdependent constituents' (Berleant, 2012: 118). Although the complex is mutable, dynamic coherence (evocative of yijing) results from the transactions between organisms, elements, conditions and other variables. Like the roving scholar in the painting (Figure 2), humans engage with the environment as a living context that corresponds in myriad ways to our own bodies, thoughts and emotions. Berleant understands the value of engagement as pivotal to an ecological aesthetics transforming ecology into experience, and vice versa (Berleant, 1993). On a particularly intriguing note, he

suggests that ecological ideas have figured more substantively into Chinese aesthetic research, although the concept of ecology derives from the Western scientific tradition.

Building on Li Zehou's translation of yijing as 'empathy', we claim that the ecological dimensions of traditional Chinese aesthetics align with recent Western theorizations of *bio-empathy*. Berleant discusses empathy as an ecological value through a reading of nineteenth-century German philosopher Theodor Lipps' elaboration of the principle of *Einfühlung*, which he in turn adopted from Robert Vischer's concept of 'aesthetic sympathy', shortened to 'empathy' in subsequent translations. In his 1873 text 'On the Optical Sense of Form', Vischer characterised empathy as the unconscious extension of one's physical form 'and with this also the soul—into the form of the object' (Vischer, 1994: 92). Moreover, Vischer distinguished between sensory and kinaesthetic modalities of empathy. From Lipps' perspective, empathy involves projective mechanisms in which internal resonances integrate with the qualities of a perceived object. Resonance prompts identification between the observer and the observed without any of the agents involved relinquishing their discrete identities (Stueber, 2010: 7–8). For Berleant, following Lipps, empathy draws together human appreciation and a perceived object in a state of resonance (Berleant, 1993: 16). He further elaborates that 'when empathy with a physical movement takes place, there is a consciousness that is wholly identical with the movement' (Berleant, 1993: 16). (Consider the resonances between the scholar, the flowers, and the birds—between *xu* and *shi*—in Ma Yuan's painting and the Emperor's poem rendered in calligraphy). With no pretense of subject-object absorption or complete incorporation, empathy is an ecological value that entails 'feeling on self into the aesthetic object, an activity that engages not just our attention but also kinaesthetic sensations' (Berleant, 1993: 17).

One of the earliest expressions of a bio-empathy theory is Thomas Nagel's 1974 essay 'What Is It Like To Be a Bat?' (although he never invokes the term *empathy* in the text).

Forwarding a critique of reductionism, Nagel addresses the philosophical problem of extrapolating from our own lives to the inner lives of bats (or, for that matter, any other non-human entity). Rather than taking the position that the extrapolation process is indefensible, Nagel concludes that devising a phenomenology to describe bat experience, instead, necessitates beginning with the human. Extending ourselves into the phenomena we apprehend (bats, birds, wildflowers, or otherwise) raises the ingrained problem of subjective and objective demarcations, but provokes human encounter with the ineffable and irreducible: 'Reflection on what it is like to be a bat seems to lead us […] to the conclusion that there are facts that do not consist in the truth of propositions expressible in a human language' (Nagel, 1974: 441).

Environmental ethics and its precursors have linked bio-empathy to the intrinsic value of non-human species. German theologian Albert Schweitzer (1875–1965) is credited with developing an early life-centred model and a will-to-live theory integrating reason and empathy, but has been criticised on the grounds of strong anthropocentrism (Martin, 2016: unpaginated). One of his critics, the environmental philosopher J. Baird Callicott, in his essay 'In Defense of the Land Ethic', nevertheless pivots to bio-empathy as the most significant moral theory for establishing and defending the intrinsic value of non-humans (Callicott, 1989: 154). Drawing from Adam Smith, Hume, Darwin, Leopold and E.O. Wilson, Callicott forwards a bio-empathy framework through the assertion that the human capacity for altruistic behaviour and empathic identification has an evolutionary basis. It is a means to ensure cooperative, interspecies survival. Hence, the value of bio-empathy is especially imperative in our present era of devastating and exponentially increasing human effects on climate, ecosystems and species worldwide, including in China and other parts of Asia. Crucially, for Callicott and other environmental theorists, as well as for our understanding of the yijing, empathic identification includes both conscious, living forms of life (bees, birds,

flowers) and what are considered, in Western ontology, non-conscious, non-living ecological elements (rocks, soils, water).

Up to this point, we have reviewed traditional Chinese aesthetics and bio-empathy in support the yijing as an ancient ecological aesthetic of contemporary relevance—one based on the value of engagement, rather than opposition, between perceiving subjects and perceived objects as a basis for empathic identification. Our understanding of the yijing and of ecological aesthetics, more generally, aligns with Cheng Xiangzhan's energetic (*ch'i*-based) conception of aesthetics in which environments are not merely visual scenes reducible to their constituent parts but rather 'complex and dynamic fields of energy transformation' (Cheng, 2013a: sect. 4, para. 5). For this reason, the model of Chinese ecological aesthetics we are proposing is companionable with recent developments in material ecocriticism. The so-called 'material turn' in *ecocriticism* (a term first mentioned by William Rueckert in 1978) critiques the view of the environment as an inert material acted upon or symbolic structure to be interpreted, and instead recognises the 'distinctive forms of agency and effectivity on the part of material forces' (Joyce and Bennett, 2010: 4). Political ecologist Jane Bennett's concept of 'vibrant matter' (indeed evocative of the Chinese concept of *ch'i*) involves a process she describes as 'encountering a vital materiality [in which] all forces and flows (materialities) are or can become lively, affective and signaling' (Bennett, 2010: 111, 117). An inclusive framework such as this expands our field of relations to animate, conscious and inanimate, non-conscious objects similarly. In light of this new materialism, a traditional Chinese painting, such as Ma Yuan's (Figure 2), can be more fully appreciated for its themes of ecological awareness, human engagement with the environment in all its expressions and forms, and the co-extensiveness of the inner emotional domain and the world apprehended by the human sense faculties.

Applying the *Yijing* as an Eco-Aesthetic: Three Case Studies

Having theorised the yijing as an eco-aesthetic, we now ask the following: How might it be applied to contemporary Chinese contexts in an era of rapid biological degradation and species loss? In fostering empathic identification and a sense of engagement between subjects and objects (or what we have described variously as *correspondence*, *interpenetration* and *immersion*), how might the yijing promote sustainability and well-being in built and natural environments? We will address these questions through three brief case studies—one each from urban planning, environmental conservation, and the creative arts—in Chinese contexts. Respectively, the examples we present in this section are (a) the Xiamen (厦门) Island Ring Road, (b) Mount Lushan (庐山) National Park in Jiangxi Province, and (c) the digitally-based interactive climate change data visualisation work *Taiji II*. As a whole, the three quite different case studies exemplify the yijing in practice—historically and contemporarily—as an ecological aesthetic reflecting 'the unity of feelings and scenery, which adds up to more than the sum of the two for it implies their mutual transformation into each other' (Chen, 2012: 333).

In the context of urban planning and architecture, Chen Wangheng (2012: 151) states that the impetus of the built environment should be toward yijing, or 'aesthetic feeling' and, more specifically, toward 'urban aesthetic feeling' (*chengshi yijing*) (城市意境). Urban elements should fuse aesthetic and utilitarian concerns. Cityscapes that engender spirit (*chengshi yiyun*) (城市意蕴), structure or form (*jiegou*) (结构), and attractiveness or beauty (*meili*) (魅力) result in enhanced liveability for humans and non-humans. In particular, the incorporation of ruins—consider the poem 'The Myriad-Year Tower'—into modern cities preserves *genius loci* in spite of dizzying rate of urban expansion in China. In striving towards yijing, planners, policy-makers, architects and designers can ensure that natural and cultural elements better harmonise; and that the city as a whole becomes increasingly a self-

sustaining, ecological system. These aesthetic ideals are expressed in the 'garden city' concept, introduced in 1958 by the engineer Qian Xuesen (钱学森). Many garden cities, such as Shenzhen (深圳) in Guangdong (广东) Province, coalesce *xianshan* (显山) (showing the mountain), *lushui* (露水) (revealing the water), and *toulu* (透绿) (revealing the green) (Chen, 2015: 167).

The Xiamen Island Ring Road (*Huandao lu*) (环岛路) greenbelt is an example of the application of yijing principles to the built environment (Chen, 2015: 159). The thirty-one mile road traverses some of the finest coastal areas of Xiamen—a garden city on China's southeast coast. The combined driving, cycling and walking course closely corresponds to the natural contours of the landscape. Rather than a mundane (and, in all likelihood, more direct) superhighway distanced from the marine environment, the Ring Road offers a slow circuitous mode of travel, highlighting the urban, cultural, and natural aspects of the metropolitan area. The route connects places of historical interest, including the Qing dynasty Hulishan (胡里山) Fortress (built in 1894), with contemporary symbols of China's international economy, such as the Xiamen International Conference and Exhibition Center. Sometimes in the form of boardwalks, walking paths allows pedestrians to appreciate sculptures, exercise areas and coastal features at close-range. Reflecting the ideals of an ecological aesthetics, the Ring Road also provides habitat for the diverse bird life that migrates through Xiamen throughout the year.

The yijing ideal also relates to national parks, conservation areas and wilderness reserves in non-urban locations. In the Western tradition, conservation spaces have been set in sharp contrast to so-called industrial, capitalist urban landscapes, such as Xiamen, perpetuating various forms of nature/culture binarism. As it goes, 'wilderness' is the untouched realm of animals, plants and other non-humans whereas 'civilization' is the domain of humans (Giblett, 2011: 102). As Giblett further argues, Western environmental

aesthetics—expressed in the traditions of the beautiful, picturesque, sublime and uncanny—has been one of the discourses of nature (following Michel Foucault's idea of discourse) that has propounded such divisions. For instance, some of the earliest national parks in the United States—as well as areas designated under the 1964 Wilderness Act—involved the forcible removal of indigenous people and Anglo-European homesteaders in order to create the image of places as untouched and uninhabited.

In contrast, as an aesthetic ideal bringing subjects and objects into greater states of engagement, the yijing has been formative to the character of conservation areas in China. Rather than a wilderness area devoid of cultural history, Mount Lushan National Park in Jiangxi Province is a well-known tourist attraction that exhibits the interplay of natural, historical, spiritual and aesthetic elements. As a UNESCO World Heritage Site, the park includes Mount Lushan, Hanyang Peak (汉阳峰) (the highest in the Park), and an elaborate system of ridges, valleys, caves, waterfalls and rock formations. The biodiversity comprises over three-thousand plant species and two-thousand mammals protected in reserves such as the Poyang Lake (潘阳湖) Migratory Bird Zone. In 126 BCE, the Han dynasty historian Sima Qian (司马迁) (c. 145– 86 BCE) recorded Mount Lushan in his text *Shiji* (史记), or *Records of the Grand Historian*, completed around 94 BCE. Additionally, the fourth century CE monk Huiyuan (慧远) established the 'pure land method' (a tradition of Buddhist teachings) in the Donglin Temple (东林寺) on Mount Lushan. Established on Mount Lushan in 940 CE, Bailudong (White Deer Cave) Academy (白鹿洞书院) was devoted to classical learning.

For thousands of years, Lushan has attracted artists, scholars and poets seeking yijing, which appears in their artworks as nature's vitality and spiritual resonance. Compared to Western environmental aesthetics—emphasising wild, untouched and uncivilised landscapes—yijing integrates humankind and the natural world through artistic inspiration and emotional identification. Not only focused on the perception of beauty and appearances,

yijing expresses the intricate and often unseen relationships between the people, mountains, water, and plant and animal life of the national park. The poem, 'Observing from Below the Waterfalls of Mountain Lushan', provides an example. Written by the famous Tang Dynasty poet Li Bai (李白) (or Li Po, 701–762), the work conveys the yijing of the Mount Lushan waterfall. Li depicts the waterfall in imaginative, celestial terms: 'Purple mists arise from the Incense Peak in the sun / Dangling waterfalls at the river's far end appear / Cascading from atop three thousand feet adown / Is it plunging the Milky Way from the Ninth Sphere?' (translated by Wang Daoyu, 王道余) (Wang, 2008). Li also expresses a kind of empathy—the outward extension of his subjectivity—with the waterfalls and mountain peaks of the Lushan landscape. Western aesthetics might link Li's experience to the sublime—which, in a Kantian mode, emphasises the vastness of nature that exceeds human perceptual powers (Giblett, 2011: 63). However, rather than expressing a sense of distance and separation, Li identifies with the waterfall through his emotional states that reflect yijing, incite imagination, and facilitate immersion in, and engagement with, all that is seen.

A contemporary creative arts example of yijing is the digital work *Taiji II* (2016–ongoing) by Chinese-Australian artist and designer Author. Based on a previous installation by Author entitled *Taiji* (2013–15), which used sleep EEG data (Author, Year), *Taiji II* engages the public in producing visualisations of Chinese climate change and pollution data. As ecocritics have argued, embodied experience—such as that facilitated in *Taiji II*—can personalise the immensity of climate change and its abstract presentation in the media (for instance, in terms of statistical or political measures). On this note, theorist Tim Morton (2013) characterises climate change as a 'hyperobject'—a phenomenon so distributed in time and space that it exhausts a subject's perceptions and emotions. Offering an arts-based response to climate change and public discourse surrounding the issue, Author devised *Taiji II* to explore yijing-based data visualisation in a digital context. The aim is to generate

aesthetic experiences that integrate ancient Chinese ecological aesthetics with the newest visualisation technologies. As the data-set for the project, Author draws from statistics used by the Real-time Air Quality Index (AQI) for Beijing and other Chinese cities, which indicate the presence of fine particulate matter, or $PM_{2.5}$, in the atmosphere (World Air Quality Index, 2016).

Taiji II was also inspired by Taoist health practices, including *taijiquan* (太极拳). The work involves modulating the flow of *ch'i* (breath) through the body and the installation in order to achieve harmonisation between subjects (human participants) and objects (technology, data, the climate change issue). A gesture-based platform known as Kinect tracks the movements and vocalisations of the participants in the gallery as they interact with the data. The technology integrates the data and the participants' movements as a whole Taoist body—creating coherence between subject, scene, technology and nature. *Taiji II* allows participants to engage with—and directly affect—the visual patterns they perceive on a projection screen. As participants moves their bodies, the projected visualisations—based on the $PM_{2.5}$ data—transform into a symphony of shapes, patterns and colors. Inspired by yijing ideals, *Taiji II* uniquely facilitates bodily engagement with abstract data. The emotionally moving experience promotes ecological awareness of the interrelationship between bodies, climate and nature.

Conclusion

This paper has addressed the contribution of traditional Chinese yijing aesthetics—defined in terms of engagement and empathy—to ecological contexts. As an ancient aesthetics, the yijing differs to the *I Ching* text, which is often focused on practices of divination. We have argued that the yijing emphasises the harmonisation of perceiving subjects (selves) and perceived objects (nature, environments, cosmos) in Chinese literature, poetry, music and

visual art. The yijing is an aesthetic approach for representing ecological interactions (as in Ma Yuan's painting) but also a means for stimulating, fostering and shaping interactions between beings and elements. As an eco-aesthetic that raises awareness of human beings and the natural world, the yijing is particularly relevant to ecological sustainability in contemporary China. We hope that further research into the yijing as an eco-aesthetic will identify other unique features that render it crucial for human and non-human flourishing in the twenty-first century.

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