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Wang Shu's architecture is interpreted as an ecological practice, fulfilling a set of values derived from the phenomenology of Martin Heidegger, Maurice Merleau-Ponty, Juhani Pallasmaa, and others.

Wang Shu's design practice and ecological phenomenology

Hing-Wah Chau

Wang Shu (b. 1963) is a locally trained Chinese architect who has received widespread media coverage in the last decade, especially after receiving the prestigious Pritzker Prize in 2012, often considered the Nobel Prize of architecture. Numerous articles and interviews have been published concerning Wang Shu and his design practice, however, there is a lack of analysis of his work from what might be called the perspective of his ecological phenomenology. Wang acknowledges his interest in phenomenological thinking and expresses an ongoing concern about human relationships with place and nature, the continuity of craftsmanship in the face of technological development, as well as the materiality and tactility of bodily perception. Before analysing Wang's work, relevant ideas of Martin Heidegger (1889–1976) and Maurice Merleau-Ponty (1908–1961) and their influence on architectural discourse are firstly examined. Both of them were seminal philosophers who offered inspiring insights to ecological discourse.

Heidegger's seminal work, *Being and Time*, was published in 1927. His main interest was the question of Being (which he capitalised), and the understanding of human nature as Being-in-the-world (*In-der-Welt-sein*).[1] Heidegger's postwar works, in a series of lectures including 'The Thing' (1950), 'Building Dwelling Thinking' (1951) and '... Poetically Man Dwells...' (1951), reflected a turn in his orientation towards the notion of dwelling with care for the living environment.[2] Heidegger's ideas of Being-in-the-world and dwelling have been highly influential among academics' built environment fields, namely Christian Norberg-Schulz, David Seamon, Robert Mugerauer, and Edward Casey.[3]

Strongly influenced by Heidegger's thinking, Merleau-Ponty was the first phenomenologist to identify the uniqueness of the body and the primacy of bodily perception.[4] In *Phenomenology of Perception* (1945), Merleau-Ponty developed his philosophy of embodied existence and focused on a rootedness in primordial encounters.[5] Merleau-Ponty's thinking has been frequently quoted by the architectural theorist Juhani Pallasmaa and the architect Steven Holl. After reviewing the relevant writings of Heidegger and Merleau-Ponty, and examining the eco-phenomenological philosophy that results, this article will discuss the relationship between their insights to ecological discourse and Wang Shu's design practice.

Dwellers and guardians

Before the publication of *Being and Time*, Heidegger raised the question: 'What are poets for in a destitute time?'[6] He attributed destitution to modernity and the impact of modern technology and the predominance of scientific ideas. Everything has become material for self-assertive production, Heidegger argued, and the culture of technical production stresses an endless pursuit of maximisation and efficiency. The calculative way of thinking prevalent in modernity ignores the essential nature of things, he argued, and leads to the technologisation of human life resulting, in Heidegger's terms, in 'the extreme oblivion of Being'.[7] Following the predominance of technological ideas, the world has been radically abused under the ambition of dominion over the earth.

The modern philosophical foundation for the idea of human domination of the earth can be found in the writings of René Descartes (1596–1650). Descartes initiated the rationalist tradition whereby the mind could apprehend objective reality through reason.[8] Human being is conceived as *res cogitans* (a thinking thing) confronting *res extensa* (an extending thing) in measurable space as an extension of thinking ego.[9] Extension (*extensio*) is the core concept in Descartes's understanding of space based on the universal coordinates of abstract Cartesian geometry in a three-dimensional continuum.[10] This has led to the well-established idea of the subject-object dichotomy in Western philosophy, in which the world is construed as a set of objective conditions. In the *Discourse on Method and Meditations on First Philosophy* (1637), Descartes further explicates the human relationship with the world:

> [...] *knowing the force and the actions of ice, water, air, stars, the heavens, and all the other bodies that surround us, just as we understand the various skills of our craftsmen, we could, in the same way, use these*

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> *objects for all the purposes for which they are appropriate, and thus make ourselves, as it were, masters and possessors of nature*.[11]

Through possessive mastery of the world, human superiority is promoted. Descartes places human mind above nature, which is regarded as exploitable resource under the dominion of humanity, leading to the technological and scientific manipulation of the environment. Such thinking has resulted in unsustainable practices and resource depletion at a cost of severe environmental degradation, including widespread deforestation, emission of excessive greenhouse gases, soil contamination, and discharge of toxic chemicals into waterways. As cautioned by the Millennium Ecosystem Assessment Board:

> *Human activity is putting such a strain on the natural functions of Earth that the ability of the planet's ecosystems to sustain future generations can no longer be taken for granted.*[12]

The perceived crisis due to the supreme primacy attributed to scientific knowledge was highlighted by the founder of modern phenomenology, Edmund Husserl (1859–1938).[13]

Husserl's student, Heidegger, argued that the world is not a collection of objects, but a system of purposes and meanings that organises our activities and identity.[14] He advocated Being-in-the-world as the basic state of human existence, which cannot be isolated from context.[15] Personal engagement precedes abstract reflection and objective worldview. In *Being and Time* (1927), Heidegger uses the term *Dasein* to replace the traditional concept of subject. *Dasein* reflects its etymological construction of 'Being-there', and the *Da* (there) of *Dasein* itself implies the spatiality of existence, which is always thrown into a concrete situation.[16] The understanding of *Dasein* as Being-in-the-world unequivocally opposes the subject-object dichotomy, suggesting that it is invalid to question the existence of the world outside human beings. Heidegger identified that our understanding of things is predetermined by the fact of our Being-in-the-world, inseparable from the surrounding context. The term 'phenomenology' thus concerns the way that things appear in human experience, expressed in the maxim 'To the things themselves!'.[17] What is primarily encountered is not a three-dimensional Cartesian multiplicity of possible positions or a world of objective measurements, Heidegger argued, but the disclosedness of things ready-to-hand within a referential totality of our everyday concern, in an existential-ontological sense.[18] *Dasein*'s dealing with things in the world is concern, so a fundamental aspect of Being-in-the-world is, essentially, care.[19] The idea of care was further developed in his subsequent notion of dwelling, contrasting human relationships with place through dwelling with the abstract understanding of space as a pure mathematical description of distances.

Heidegger identified human beings as dwellers living on the earth, rather than the masters and possessors of the world. In 'Building Dwelling Thinking', he investigates the meaning of building, '*bauen*', with reference to the Old English and High German word, '*buan*'. He reveals that '*bin*' (be) belongs to the old word '*bauen*', so '*ich bin*' (I am) means I dwell.[20] Dwelling, therefore, is the nature of human beings. For Heidegger, the origin of certain words can reveal the nature of things.[21] By arguing that to dwell is 'to be at peace, to be brought to peace, to remain in peace', Heidegger correlates the concept of dwelling to sparing and preserving:

> *The word for peace*, Friede, *means the free*, das Frye, *and* fry *means*: *preserved from harm and danger, preserved from something, safeguarded. To free really means to spare. The sparing itself consists not only in the fact that we do not harm the one whom we spare. Real sparing is something positive and takes place when we leave something beforehand in its own nature, when we return it specifically to its being, when we 'free' it in the real sense of the word into a preserve of peace. To dwell* [...] *means to remain at peace within the free, the preserve, the free sphere that safeguards each thing in its nature. The fundamental character of dwelling is this sparing and preserving*.[22]

Since dwelling, thought in this way, involves the safeguarding of each thing in its nature, so our role is not merely as dwellers, but also as guardians. In a letter to a young student, Heidegger clarifies that this is not equivalent to the task of a guard who protects a treasure from burglars because 'guardianship of Being is not fixated upon something existent'.[23] Instead, guardianship is vigilance and watchfulness for human beings to be in an authentic relationship with others. In fact, dwelling and guardianship are two faces of the same coin. Dwellers experience a sense of belonging, take care for the things in their dwelling places, and carry out the mission of guardianship.

Heidegger summarised Being-in-the-world in terms of what he called the 'fourfold' of earth, sky, divinities, and mortals, where each of these four mirrors in its own way the presence of the others.[24] This can be regarded as 'inter-connectedness, holism, and respect for the more-than-human world'.[25] The finitude of the human condition here was stressed by situating mortals within boundaries. Dwelling is recast here not merely as a staying on earth under the sky, but also caring for the fourfold, involving profound concern.[26] Instead of the destructive exploitation of resources or technological manipulation of human environments, letting-be is a way to preserve and safeguard each thing in the full appropriateness of its nature and to foster the earth's ecological diversity.[27] As a dweller and a guardian, a human being has a responsibility to otherness. Through the critique of anthropocentric humanism, Heidegger indicates the importance of taking care of the world as a homeland for preservation and sustainability.

Place, body, and perception

Heidegger's thinking has had a profound influence on the development of theoretical discourse in architecture and the built environment. Christian Norberg-Schulz, in *Genius Loci: Towards a Phenomenology of Architecture* (1979), who frankly acknowledges that he owes 'to Heidegger the concept

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1 Xiangshan Campus is designed to coexist with its natural surroundings for the mutual interaction of scenic landscape, delicate gardens, and pedagogy.

of dwelling',[28] defines architecture as the expression of the spirit of a particular place, *genius loci*, and the task of the architect as the creation of meaningful places.[29] Heidegger's contribution to *Dwelling, Place and Environment* (1985), is also evident,[30] where editors David Seamon and Robert Mugerauer criticise a contemporary mentality they perceive in attitudes to the built environment:

> *At the height of our technological mastery, we often find ourselves separated from both the earth and our own human being. After many centuries of building our world, we meet an unsettling nexus of domination* [...].[31]

Mugerauer, in *Interpretations on Behalf of* Place (1994), further reminds us to be responsible towards the world as 'caretakers or guardians' and considers that the understanding of our own role, together with careful planning and design, can accomplish the building of place.[32] Similar to Mugerauer, Edward Casey in *Getting Back into Place* (1993) highlights the importance of the sense of place in our lived experience, arguing that 'place is the phenomenal particularisation of "being-in-the-world"', noting that 'the cultivation of built places [...] localises caring'.[33]

In *Phenomenology of Perception* (1945), Merleau-Ponty emphasised the dimension of our immediate bodily engagement.[34] For Merleau-Ponty, the body is 'the vehicle' of Being-in-the-world and is 'the pivot of the world'.[35] Merleau-Ponty opposes Cartesian dualism of mind and body and asserts that neither mind nor body can exist in isolation, which are in fact intertwined with each other. For Merleau-Ponty, human beings cannot objectively stand apart from the world as spectators with pure consciousness as the body offers a kind of framework for all perception. The body is not merely a passive recipient of external stimuli, but also can attune to the world. This leads to a renewed valuation of the living context through the physical embeddedness and situatedness in the world. Against distrust of the senses, he arouses our attentiveness to bodily experience. Perceptual experience is inherently participatory, and sensuous engagement is ongoing and dynamic, involving an active interplay between the perceiving body and the corporeal world. According to Merleau-Ponty, the body is 'our anchorage in a world'.[36] He discloses the inter-relational nature of all perceptual experiences by considering every perception as a communion:

> *Given that relations among things or among the appearances of things are always mediated by our body, then the setting of our own life must in fact be all of nature; nature must be our interlocutor in a sort of dialogue* [...] *The thing can never be separated from someone who perceives it* [...] *To this extent, every perception is a communication or a communion* [...].[37]

Such a 'sort of dialogue' indicates a constant openness and connection to the world and others. Due to the primordial nature of embodied Being-in-the-world, knowledge is developed through an exchange with others, invoking reciprocal understanding as a fundamental relationality, leading to socio-historically constructed ideas of meaning and value.[38]

Similar to Heidegger's fourfold worldview delineating the finitude of human condition, Merleau-Ponty encourages us to be aware of our inherence and immersion in the corporeal world and

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rediscover our reliance on the natural order. In his later work, *Signs* (1960),[39] Merleau-Ponty elaborates the living body as perceiving, and being perceptible, simultaneously. By referring to our 'primordial' encounter with the world, and sensory perception of it prior to rational understanding, he accentuates a palpable connection between the body and nature, stimulating care and concern for our own bodiliness and the surrounding environment, which can be interpreted as an ontological basis for ecological phenomenology.[40] The interconnection with others becomes the basis for an ethical realm.[41]

Merleau-Ponty's notion of bodily perception has been influential in architectural theory, as elaborated by *Questions of Perception: Phenomenology of Architecture* (1994), co-authored by Steven Holl, Juhani Pallasmaa, and Alberto Pérez-Gómez.[42] The book includes a chapter titled 'An Architecture of the Seven Senses' written by Pallasmaa who reminds us that:

> *Every touching experience of architecture is multi-sensory; qualities of matter, space, and scale are measured equally by the eye, ear, nose, skin, tongue, skeleton and muscle. Architecture involves seven realms of sensory experience which interact and infuse each other.*[43]

After Merlau-Ponty and Heidegger, Pallasmaa criticises the prevailing phenomenon of turning architecture to become 'an art of the printed image' or 'the retinal art of the eye', which focuses on the dominant sense of vision, but ignores other senses;[44] an argument further developed in *The Eyes of the Skin: Architecture and the Senses* (2005),[45] whose title emphasises 'the significance of the tactile sense of our experience of the world'.[46] For Pallasmaa, good architecture invites multisensory spatial experiences through material tactility and bodily movement. After Merleau-Ponty's identification of the embodied nature of perception as our primordial condition of Being-in-the-World, Pallasmaa claims that the 'timeless task of architecture' is:

> *to create embodied and lived existential metaphors that concretise and structure our being in the world* [...] *Architecture enables us to perceive and understand the dialectics of permanence and change, to settle ourselves in the world, and to place ourselves in the continuum of culture and time* [...] *Architecture is the art of reconciliation between ourselves and the world, and this mediation takes place through the senses*.[47]

Towards eco-phenomenological design

Heidegger and Merleau-Ponty's work, in combination with the work of architectural theorists concerned with phenomenology, establishes the contours of an ecological phenomenology. They share the same view of opposing the entrenched assumptions of subject-object dichotomy and mind-body dualism. Heidegger's notion of dwelling and Merleau-Ponty's notion of bodily perception, similarly, emphasise our inseparability from the world and rootedness in our living context within the dimensions of place and time. As highlighted by their thinking, we are inherently inter-relational in our embedded existence. This idea of a primordial inter-relationship reminds us of our accountability to nature and to otherness. The values of such an ecological phenomenology can be summarised as below, work:

1. against the endless pursuit of maximisation and destructive exploitation of natural resources;
2. against human dominion over nature and inappropriate technological manipulation of the environment;
3. with human beings as dwellers, for preserving each thing in its nature to foster the earth's ecological diversity;
4. with human beings as guardians for taking care of the world as a homeland with responsibility to otherness;
5. in dynamic sensuous engagement between the perceiving body and the corporeal world and;
6. developing reciprocal understanding through inter-relational perceptual experiences.

Thus conceived, ecological phenomenology can motivate design practice. It suggests the importance of creating a dwelling place with identity and character that can evoke a sense of belonging, safeguarding the earth's ecological diversity, enhancing human interaction with the environment. Any subsequent design outcome should be conceived not for static observation, but also to encourage the exploration and experience of its multiplicity and variety. In the following section, Wang Shu's work will be analysed from the perspective of such eco-phenomenological design values.

Wang Shu's design thinking and practice

Wang studied architecture at the Nanjing Institute of Technology in China, completing five-year undergraduate and three-year postgraduate programmes of study from 1981 to 1988. During that period, social and cultural liberalisation was being fostered in China under the Open Door Policy of Deng Xiaoping. Western ideas and theories were imported and translated versions of foreign books became available to Chinese readers. Since his university studies, Wang has been fascinated by phenomenology, including the work of Husserl, Heidegger, and Merleau-Ponty, among others.[48] After the completion of the design of his own living unit in Hangzhou with the removal of doors and non-structural walls, Wang was excited to observe that his two-year-old son could appreciate the spatial quality intuitively through personal interaction with the space at play, perceiving 'the things themselves' – the maxim of phenomenology.[49] Wang participated in the 'Phenomenology and Architecture' conference in China in 2008, which involved both Chinese philosophers and architects. The resulting discussion, mainly focused on the phenomenological thinking of Heidegger and Merleau-Ponty, was collected in the book *Dialogue between Phenomenology and Architecture* (2009).[50] As the Head of the Architecture School of the China Academy of Art in Hangzhou, Wang encourages students to rethink fundamental issues of architecture based on their primordial engagement with everyday life, not to be restricted by their

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2 Vernacular characteristics of the Xiangshan Campus display a strong sense of place and local identity in the face of persistent globalisation.

professional knowledge. He also introduced a phenomenological approach to his teaching by asking students to perceive the site context intuitively, imagining that Husserl and Heidegger might teach phenomenology to students in a lively manner without being confined to classrooms.[51]

There has been a consistency to Wang's design approach since the year 2000. From his small initial experiments of the Five Scattered Houses in Ningbo (2003–06) to larger scale public buildings, such as the Xiangshan Campus in Hangzhou (2004, 2007, 2013), and the Ningbo History Museum (2008), Wang has reiterated the importance of the inter-relationship of architecture and nature, sense of place and identity, continuity of craftsmanship and technologisation, visual and tactile qualities for sensory perception, as well as the invitation of the built environment to bodily movement. The relationship between his design practice and this apparent ecological phenomenology can be best exemplified by his design for the Xiangshan Campus of the China Academy of Art in Hangzhou.

An inter-relationship with nature

Wang's work expresses his persistent concern about our inter-relationships with natural landscapes and the built environment. He draws our attention to the importance of constructing a world with due respect to nature by referring to traditional Chinese landscape painting:

> *It is not merely a representation of a landscape, for me this painting has a philosophical significance for it expresses a world view, an awareness and our profound feelings about our country, a country that has endeavoured to comply with natural principles.*[52]

When the Xiangshan Campus was at planning stage, a site to the east of the Hangzhou mountains was selected, which was different from the conventional approach, and located in a government-zoned higher education district with well-established infrastructural provisions.[53] Wang considered natural landscape far more important in this campus setting. This is in line with the traditional practice of locating Chinese academies in secluded mountain areas away from cities, due to the mutually enlightening potential of scenic landscape, delicate gardens, and pedagogy.[54] Engagement with the landscape, and daily encounters with nature, are often considered crucial as part of Chinese academic education, for nurturing students' aesthetic value and cultivating their reflective thinking.[55]

At the Xiangshan Campus, half of the natural environment of the site has been preserved *[1]*. Teaching buildings on the north side of the hill are mainly designed following a courtyard typology, being fully enclosed or bounded on three sides. Apart from having openings facing the hill from different angles, the scale and proportion of these buildings are compatible with the hill, establishing a relationship of coexistence with the natural landscape. Some areas between teaching buildings and the hill have been maintained as farmland, and the original brook around the hill has also been preserved to restore the pastoral scenes of the original site. Farmers are allowed to return to the farmlands to grow crops and are exempted from paying rent if no chemical fertiliser is used.[56] The campus development has had a

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3 Ironmongery of the Xiangshan Campus Phase II expresses Wang's interest in the continuity of craftsmanship of local artisans.

4 The fragmentation of discarded tiles and bricks provoking intense visual impact and tactile sensations.

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positive ecological impact. The number of migrating birds making their seasonal homes there is estimated to have increased from 300 to 3,000 after the completion of the campus.[57]

The campus design reflects Wang's approach of safeguarding and preserving the natural setting of the site against environmental degradation. The central small hill, the brook, and the farmlands are 'let be in their presencing' in the full appropriateness of their nature.[58] The ecological diversity of the environment is maintained with care and a more balanced development model with less environmental impact is self-consciously promoted.

A sense of place with local identity

Under the extensive urbanisation common in contemporary China, traditional neighbourhoods and built environments have been significantly affected, frequently replaced by standard typologies of residential towers, office buildings, and shopping malls. In response to this predominant phenomenon, Wang asks the reflective question: 'How can we allow traditional culture to find a place again in a country that has embraced globalisation?'[59] Against the influence of globalisation, Wang's work pays attention to local contexts in order to express a distinctive sense of identity. For Wang, the 'humanistic atmosphere of a place is more important than architecture'.[60]

At the Xiangshan Campus, local materials have been used abundantly to anchor the teaching buildings meaningfully to the site *[2]*. Courtyards of teaching buildings on the north of the hill are surrounded by full-height fir boards, which can create contrasting appearances with rustic simplicity when closed, and delightful diversity when opened. Sloping roofs of grey tiles – in contrast to white stucco walls, rich-toned timber shutters facing the courtyards and the shadows created by projecting sun-shading *brises soleil* – all contribute to the rich traditional characteristics of the place. A family resemblance among buildings is achieved by the dominating colours of white plastered walls, natural woodwork, and the reuse of old tiles and bricks. The materiality of various walls in the campus, such as the bamboo-infilled partitions, the masonry base of the buildings, and the richly textured plastered facades enhances the vernacular characteristics of the environment and evokes a strong sense of place and identity. As commented by the Pritzker Prize jury panel,

> [...] *the recent process of urbanisation in China invites debate as to whether architecture should be anchored in tradition or should look only toward the future. As with any great architecture, Wang Shu's work is able to transcend that debate, producing an architecture that is timeless, deeply rooted in its context* [...].[61]

The continuity of craftsmanship against technologisation

Wang shows keen interest in materiality and handcraft through his work. He considers that 'simple handcraft is more important than technology'.[62] In the Hong Kong and Shenzhen Bi-City Biennale of Urbanism/Architecture (2007), his exhibition was titled 'Thinking by Hands', signifying his emphasis on craftsmanship.[63] Wang relies heavily on the craft of local artisans in his work, similar to the Western Arts and Crafts Movement of the late nineteenth and early twentieth centuries, advocating the honest expression of materials and the promotion of handmade products in the face of dehumanising industrial technology. Wang seems to echo William Morris's words about an artwork: 'the hand of the workman must be always visible in it'.[64]

At the time when the Five Scattered Houses project was built, the vernacular building tradition of using tile and brick mixed construction method seemed under threat. Local artisans were unfamiliar with such traditional techniques, requiring Wang to bring photos and detailed drawings to the site for reference.[65] Through the continuous experiment of this folk building practice for more than ten years, Wang has established a long-term collaboration with artisans and rescued regional tradition *[3]*. Window hooks, catches, and latches were made by local ironsmiths. Marks and scratches on steel panels are purposely exposed, showing the visibility of handcraft on material surfaces.

Apparently, Wang shares a similar view with Heidegger in response to technologisation and calculative ways of thinking. Instead of the endless pursuit of maximisation and a striving for uniformity in production, a more intimate relationship between the work and human beings through craftsmanship is emphasised.

Visual and tactile qualities for sensory perception

Another salient feature of Wang's work is the extensive reuse of discarded tiles and bricks, aimed at stimulating sensory perception. Rectangular bricks, curved roof tiles, and irregular broken pieces are randomly mixed without following a regular running bond. Diverse types of artefacts bear no obvious relationship to each other, but can offer a great variety of patterns. They are sometimes loosely piled leaving holes in-between. In such instances, the distribution of solid and void creates an attractive composition. Peculiar shapes of disparate fragments are embedded as unfamiliar accompaniments, resulting in a visual manifestation of fragmentation.

The subtle, yet stark, differences of colours in such mixes of material and bond contribute to the intensity of visual enjoyment *[4]*. Grey bricks of subtle tones seem to serve as a humble backdrop for appealing highlights, such as reddish circular plates and yellowish glazed tiles. The whole configuration is similar to a series of external mosaics conveying unfamiliar aesthetic qualities and awaiting viewers to appreciate them. Such a kaleidoscopic collage of multifarious items is subject to the personal preference of viewers without any predetermined gaze sequence or consecutive viewing.

In addition to the intense visual impact of facades, lumps and bumps on walls provoke tactile sensations. Protruding tiles, misaligned bricks and coarse pieces invite the body to interact with them and provide sensory perceptions of materiality. Bulky massive blocks are located at corners, forming

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5 The external walkway system of the Xiangshan Campus provides for meandering bodily movement to unfold a continuity of dynamic spatial sequence within the campus layout.

a vivid contrast to deeply recessed joints and adjacent stacking of flimsy, delicate tiles. Personal encounter with the plurality of bricks and tiles is intriguing. The appeal of materials is sympathetic to physical touch. Cracked fragments, ragged edges, shattered mortar, together with dirt and grease stains enrich the surface texture for stimulation.

Wang's work manifests the primacy of perception as advocated by Merleau-Ponty. The rich textures of walls, roofs, and paving create different atmospheres of the campus environment, providing a series of stimulating perceptions with delight and contrast.

Invitations to bodily movement

At the Xiangshan Campus, teaching buildings are connected by bridges in order to facilitate users' journeys from one building to another in all weathers. The provision of bridges at multiple levels allows a kind of dynamic connectivity, encouraging spatial exploration within the campus. This fosters stimulating sensory perceptions among users, encouraging them to access different courtyards, to pass through various wall openings, and to experience and appreciate the tactility of wall surfaces.

Spatial *promenade* is further reinforced through sinuous building forms with external ramps and steps fixed to the facades [5]. The three-dimensional walkway system serves as a continuous viewing platform for diverse visual and sensory experiences. This enables visitors and users to perceive the campus from different perspectives at many levels and invites them to participate in a meandering bodily movement, which unfolds a continuity of dynamic spatial sequence within the campus layout. As the walkway twists and turns, the sights change according to the path, facilitating users to enjoy the beautiful scenery and experience the delightful variety of the campus environment.

Wang's design arouses our attentiveness to bodily experience. Through bodily movement, visual, tactile, and other sensory qualities are apprehended, calling for a heightened receptivity of all the senses and arousing our perceptual awareness of the surroundings.

Conclusions

A close observation of Wang's work highlights what appears to be the profound influence of phenomenological ideas on his design. Amid the prevailing extensive urbanisation and relentless despoliation of the natural environment in China, Heidegger's notion of dwelling with care for the living environment, with a clear emphasis on the responsibility of guardianship, remains highly relevant in opposition to calculative ways of thinking prevalent in the legacies of modernity, and the endless pursuit of maximisation and efficiency. The lesson that the world should be neither treated as a resource awaiting destructive exploitation nor a set of objective conditions that can be possessively mastered by human beings, but as a homeland in need of care and preservation, remains of pressing relevance.

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Against the entrenched subject-object dichotomy in Western philosophy, Merleau-Ponty's work serves to accentuate our sense of physical embeddedness and situatedness in the world. A palpable connection between the body and nature is inspiration to stimulate care and concern for our surrounding environment. Under the impact of globalisation, it is common for the built environment to be homogenised. The building of stereotypical models of shopping malls and shiny office towers can seem to have become ubiquitous in modernised metropolises around the globe.

In this context, ideas about the primacy of bodily perception and the dynamic sensuous engagement between the perceiving body and the corporeal world remain important, as exemplified by Wang Shu's practice. As shown here, the relationship between Wang's design practice and the values of such an ecological phenomenology are exemplified, for example, by his design for the Xiangshan Campus of the China Academy of Art in Hangzhou. This campus design reflects Wang's persistent concern about our inter-relationship with nature, his emphasis on creating a sense of place with local identity, and his keen interest in the continuity of craftsmanship against technologisation. It also exemplifies the clear expression of visual and tactile qualities for sensory perception, as well as spatial exploration through meandering bodily movement. A stimulating campus environment is provided, arousing a reflective ecological awareness.

Notes

1. Dorothea Frede, 'The Question of Being: Heidegger's Project', in *The Cambridge Companion to Heidegger*, ed. by Charles Guignon (Cambridge: Cambridge University Press, 1993), p. 42; Martin Heidegger, *Being and Time* (1927), trans. by John Macquarie and Edward Robinson (New York: HarperCollins, 1962).
2. Martin Heidegger, 'The Thing' (1950), in *Poetry, Language, Thought*, ed. by Albert Hofstadter (New York: Harper & Row, 2001), pp. 163–84; Martin Heidegger, 'Building Dwelling Thinking' (1951), in *Poetry, Language, Thought*, ed. by Hofstadter, pp. 143–59; Martin Heidegger, '...Poetically Man Dwells ...' (1951), in *Poetry, Language, Thought*, ed. by Hofstadter, pp. 211–27.
3. Martin Heidegger has been regarded as one of the significant philosophers of the twentieth century, however, since the publication of Victor Farias's book, *Heidegger and Nazism* in 1987, Heidegger's commitment to Nazism and his involvement in the activities of the Nazi regime have attracted serious criticism.
4. David Abram, 'Merleau-Ponty and the Voice of the Earth', *Environmental Ethics*, 10:2 (1988), 103.
5. Merleau Merleau-Ponty, *Phenomenology of Perception* (1945), trans. by Donald A. Landes (Abingdon: Routledge, 2012).
6. Martin Heidegger, 'What are Poets for?' (1926), in *Poetry, Language, Thought*, ed. by Hofstadter, p. 89.
7. Heidegger, 'What are Poets for?', pp. 93, 114–15.
8. René Descartes, 'Rules for the Direction of the Mind' (1628), in *The Philosophical Works of Descartes*, trans. by Elizabeth S. Haldane and G. R. T. Ross (Cambridge: Cambridge University Press, 1973).
9. Steven M. Rosen, *Dimensions of Apeiron: A Topological Phenomenology of Space, Time, and Individuation* (Amsterdam: Rodopi, 2004), p. 7.
10. Edward S. Casey, *The Fate of Place: A Philosophical History* (Berkeley: University of California Press, 1997), p. 153.
11. René Descartes, *Discourse on Method and Meditations on First Philosophy* (1637), trans. by Donald A. Cress (Indianapolis: Hackett, 1993), p. 35.
12. Millennium Ecosystem Assessment, *Living Beyond Our Means: Natural Assets and Human Well-being*. Statement from the Board (2005), <http://www.millenniumassessment.org/documents/document.429.aspx.pdf> [accessed 3 January 2018].
13. Edmund Husserl, *The Crisis of European Sciences and Transcendental Philosophy* (1936), trans. by David Carr (Evanston: Northwestern University Press, 1970).
14. Richard Polt, *Heidegger: An Introduction* (New York: Cornell University Press, 1999), pp. 49, 54.
15. Heidegger, *Being and Time*, p. 78.
16. Ibid., p. 27, n. 1.
17. Ibid., p. 50.
18. Ibid., p. 104.
19. Ibid., pp. 83, 237.
20. Ibid., pp. 144–5.
21. Branko Mitrović, *Philosophy for Architects* (New York: Princeton Architectural Press, 2011).
22. Heidegger, 'Building Dwelling Thinking', p. 147.
23. Martin Heidegger, 'A Letter to a Young Student' (1950), in *Poetry, Language, Thought*, ed. by Hofstadter, p. 182.
24. Heidegger, 'The Thing', p. 177.
25. Paul J. Ennis, 'Toward a Heideggerean Eco-Phenomenology', *Intertexts*, 11:2 (2007), p. 126.
26. Monika Langer, 'Nietzsche, Heidegger, and Merleau-Ponty: Some of their Contributions and Limitations for Environmentalism', in *Eco-Phenomenology: Back to the Earth Itself*, ed. by Charles S. Brown and Ted Toadvine (Albany: State University of New York Press, 2003), pp. 103–20.
27. Heidegger, 'Building Dwelling Thinking', p. 149.
28. Christian Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (1979) (New York: Rizzoli, 1980), p. 5.
29. Ibid., p. 5.
30. David Seamon and Robert Mugerauer, eds, *Dwelling, Place and Environment: Towards a Phenomenology of Person and World* (Dordrecht: Martinus Nijhoff, 1985), p. 3.
31. Ibid., p. 1.
32. Robert Mugerauer, *Interpretations on Behalf of Place: Environmental Displacements and Alternative Response* (Albany: State University of New York Press, 1994), pp. 72, 184.
33. Edward Casey, *Getting Back into Place: Toward a Renewed Understanding of the Place-World* (Bloomington and Indianapolis: Indiana University Press, 1993), pp. xv, 175.
34. Merleau-Ponty, *Phenomenology of Perception*, p. 52.
35. Ibid., p. 84.
36. Ibid., p. 146.
37. Ibid., p. 334.
38. Melissa Clarke, 'Ontology, Ethics, and Sentir: Properly Situating Merleau-Ponty', *Environmental Values*, 11 (2002), 211–25.
39. Merleau Merleau-Ponty, *Signs* (1960), trans. by Richard C. McCleary (Evanston: Northwestern University Press, 1964).
40. John R. White, 'Lived Body and Ecological Value Cognition', in *Merleau-Ponty and Environmental Philosophy: Dwelling on the Landscapes*

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of Thought, ed. by Suzanne L. Cataldi and William S. Hamrick (Albany: State University of New York Press, 2007), pp. 177–90.
41. Douglas Low, 'Merleau-Ponty, Ontology, and Ethics', *Philosophy Today*, 56:1 (2012), 59–77.
42. Steven Holl, Juhani Pallasmaa, and Alberto Pérez-Gómez, eds, *Questions of Perception: Phenomenology of Architecture* (Tokyo: a+u, 1994).
43. Juhani Pallasmaa, 'An Architecture of the Seven Senses', in *Questions of Perception: Phenomenology of* Architecture, ed. by Holl, Pallasmaa, and Pérez-Gómez, p. 30.
44. Pallasmaa, 'An Architecture of the Seven Senses', p. 29.
45. Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses* (Chichester: John Wiley & Sons, 2005).
46. Ibid., p. 10.
47. Ibid., pp. 71–2.
48. Hing-wah Chau, 'Dangdai Zhongguo Jianzhu de Taolun: Wang Shu Jiaoshou Fangtan' ['Discussion on Contemporary Chinese Architecture: Interview with Prof. Wang Shu'], *HKIA Journal*, 56 (2009), 100–03.
49. Wang even discussed with a philosophy professor the possibility of teaching phenomenology at kindergarten because it would make children aware of the primordial nature of things. Wang Shu, 'Zaoyuanji' ['Record of Garden Making'], *Jianzhushi* [*Architect*], 86 (1999), 81.
50. Peng Nu, Zhi Wenjun, and Dai Chun, eds, *Xianxiangxue yu Jianzhu de Duihua* [*Dialogue between Phenomenology and Architecture*] (Shanghai: Tongji University Press, 2009).
51. Wang Shu, 'Zouxiang Xugou zhi Cheng' ['Go to a Translunary City'], *Time + Architecture*, 5 (2003), 41–2.
52. Wang Shu, *Building a Different World in Accordance with Principles of Nature* (Paris: Editions des Cendres, 2013), p. 26.
53. Wang Shu and Wenyu Lu, 'Zhongguo Meishu Xueyuan Xiangshan Xiaoqu' ['Xiangshan Campus of China Academy of Art'], *Jianzhu Xuebao* [*Architectural Journal*], 9 (2009), pp. 50–9.
54. Xin Wu, 'Yuelu Academy: Landscape and Gardens of Neo-Confucian Pedagogy', *Studies in the History of Gardens & Designed Landscapes: An International Quarterly*, 25:3 (2005), 156–90.
55. Xin Wu, 'History, Neo-Confucian Identity, and Landscape at the Yuelu Academy', in *Interlacing Words and Things: Bridging the Nature-Culture Opposition in Gardens and Landscape*, ed. by Stephen Bann (Washington: Dumbarton Oaks, 2012), pp. 65–80.
56. Wang Shu and Wenyu Lu, 'Zhongguo Meishu Xueyuan Xiangshan Xiaoyuan Shannan Erqi Gongcheng Sheji' [Phase II of Xiangshan Campus, China Academy of Arts], *Time + Architecture*, 3 (2008), 74.
57. Yuankai Tang, 'An Architect Respectful of Traditions and Nature', *China Today*, 61:6 (2010), 56.
58. Heidegger, 'Building Dwelling Thinking', p. 149.
59. Wang, *Building a Different World in accordance with Principles of Nature*, p. 44.
60. Wang Shu, Jiang Xu, and others, *Tiles Garden: A Dialogue beyond City, between an Architect and an Artist* (Hangzhou: China Academy of Art, 2006), p. 16.
61. The Pritzker Architecture Prize Jury Members, *Jury Citation* (2012), <https://www.pritzkerprize.com/laureates/2012> [accessed 28 January 2018].
62. Wang and others, *Tiles Garden*, p. 16.
63. Wang Shu, '"Thinking by Hands": An Experiment on the Reconstruction of Living Places in Collapsing Traditional Cities', in *Refabricating City: Hong Kong & Shenzhen Bi-city Biennale of Urbanism/Architecture*, ed. by The Hong Kong Institute of Architects (Hong Kong: The Hong Kong Institute of Architects, 2007), p. 45.
64. William Morris, 'On Pottery and Glass' (1882), in *William Morris on Art and Design*, ed. by Christine Poulson (Sheffield: Sheffield Academic Press, 1996), p. 131.
65. Rafaël Magrou, 'Focus on: Wang Shu', *Architecture d' aujourd'hui*, 375 (2010), p. 81.

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