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Cybernetic Musings on Open Form(s)

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Learning to float

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Second-order cybernetics conceives of human beings as agents and participants in the making of worlds, embedded in the design process. This conception of designing as a practice of living with and in a world grants it both urgency and hope.

The paper proposes that design practitioners, in the widest sense, can learn from design cybernetics when conceiving new methodologies for the post-Anthropocene era. Further, it proposes that these methodologies' development can take advantage of comparative studies of design cybernetics and design strategies found in traditional Chinese culture. Significantly, Chinese landscape poetry and landscape painting, and, in relation to this, Chinese classical garden design, emphasise elements that are also present in cybernetics discourse: circularity, a floating observer, and the continuity of observer and environment. The paper proposes that these ideas create the necessary conditions for the development of design approaches that reconnect human beings to their environments and permit future agents to initiate change from within. It concludes with an example of a public art installation that implements these ideas.

KEYWORDS: design cybernetics, design ecologies, more-than-human, post-Anthropocene, cross-cultural discourse, Chinese gardens

RSD TOPIC(S): Methods & Methodology, Socioecological Design, Sociotechnical Systems

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Learning to float

The second-order cybernetics approach to design views designers as embedded in the design process (Glanville, 2007). Yet, as second-order cybernetics generally conceives human beings as creators of their worlds, what designers experience in the design process can be considered representative of all life situations. Second-order cybernetics refers to an embedded observer, but, as Ranulph Glanville pointed out, this term does not accurately represent that the observer is not merely seeing but also making, embedded in a continuously changing system. To address this discrepancy, Glanville replaced the term observer with the term composer in his later writings (Seaman, 2022). Second-order cybernetics views every human being as an agent participant in the making of worlds. Further, as I have argued elsewhere, second-order cybernetics offers a principle of integration, similar to art, inherent in the idea of conversation. Second-order conversation is conceived as an aesthetic practice (Westermann, 2021). The term composer captures the aesthetic dimension intrinsic to this process. It honours ideas of Gordon Pask and Herbert Brün (Pask, [1968] 1970; Brün, 1972; Richards, 2010).

Expanding on Pask and Brün, Anetta Pedretti highlighted the importance of understanding that the second-order embedded observer must learn *to float* (Lombardi, 2021). Floating renounces control as a limiter of potentialities and instead embraces it as an enabler. Consequently, the unknown is introduced as a prerequisite for the agent-environment ecosystem. To float, one needs to embrace the unknown. The second-order conception of human beings as makers-of-the-world-they-inhabit entails the continuity of human agents and environments. This is vital for design methodologies that aim at more-than-human-centric design.

Similar notions are encountered in ancient Chinese approaches to garden design and the related disciplines of landscape painting and poetry. Both design cybernetics and the ancient Chinese landscape-related arts emphasise circularity over linearity. Both rely on a relationship between the observer and the environment that is continuous and essentially emotional.

The following ancient Chinese expression captures these ideas (Yang, 2014):

> 寄情山水，与化同游.
>
> (Jìqíng shānshuǐ, yǔ huà tóng yóu.)
>
> Send love to the landscape and swim with the transformation.

Extending landscape poetry and painting, the Chinese classical gardens were built as a technology for the self-improvement of scholar-officials, the so-called literati. Learning to float was considered essential for this self-improvement. As such, the classical Chinese gardens can be considered a learning technology. Circularity is emphasised in classical Chinese gardens not only as a natural circularity of time; it is a principle of arrangement that affects both time and space. It relates to ideas predating Chinese garden design that are present in the organisation of ancient Chinese encyclopaedias (Hall & Ames, 1998). Furthermore, the idea of a circle in Chinese culture differs from that in European culture. The latter emphasises the outline. In Chinese culture, the circle is centring, and while there is an outline, it does not appear as fixed but as expanding. Consequently, there is less emphasis on in-or-out because expanding circles turn such a distinction into a temporary one (cf. Hall & Ames, 1998; Berstrand et al., 2022).

Seats for seeing

The public art installation *Seats for Seeing* (Seats for Seeing, 2019) integrates the aforementioned concepts that are present in both design cybernetics and ancient Chinese approaches to garden design. The work was realised in 2019 in the village of Beikeng, in the remote countryside of Fujian Province, China, by a team of researchers and practitioners from Xi'an Jiaotong-Liverpool University.

Figure 1. Seats for Seeing, Beikeng village, photographs by Fanyun Chen, December 2019.

When visiting the historical village of Beikeng in Jukou County of Fujian Province in the summer of 2019, we encountered a complex situation marked by contradictions. Historical Chinese villages are the roots of Chinese culture. They are valued for their traditions, crafts and built heritage, yet they have faced significant challenges in an era of fast-paced modernisation.

Jukou County is located in the mountainous landscape of Fujian Province. It is a natural paradise, yet it offers few work opportunities outside of farming, which in this mountainous region depends on hard manual labour. As the young relocate to urban centres in search of better opportunities, rural communities face significant issues through depopulation and ageing. Jukou County is composed of thirteen villages with significant heritage from the 16th and 17th centuries. Despite their heritage value, the villages were largely forgotten until a new high-speed train line offered improved connections to larger urban centres. Within this context, the *Yanping Art Festival* was initiated as an experiment in revitalising the countryside. Held biennially over a two months interval since 2017, it has successfully attracted visitors to the local communities of Jukou County.

Beikeng village, the site of the installation, is one of the smaller villages of Jukou County and one of its most remote. Beikeng's community experienced a significant decline, with a reduction of its population from 1000 inhabitants in 1980 to 40-50 inhabitants in 2019.

Creating an installation with the *Yanping Art Festival's* core aim of revitalising the countryside provided significant challenges. The *Seats for Seeing* project faced what in design research is referred to as a 'wicked' task, characterised by the impossibility of compartmentalising it into individual elements that can be addressed separately (Rittel, 1972; Fischer & Richards, 2017; Sweeting, 2018; Herr, 2019; Perera, 2020). Art and design address wicked situations that do not require a deterministic description. The ability to address wicked situations – situations which cannot be tamed – is part of their inherent principle of integration.

Figure 2: Seats for Seeing, Beikeng village, photograph by Claudia Westermann, November 2019.

The project *Seats for Seeing* responds to the challenges facing the village community with a conversational framework that offers opportunities for people of all ages. For some, it is a meeting place; for others, a playground; and for others still, it is an opportunity to contemplate the landscape. It is window and frame. It reflects local forms, crafts and styles into a novel pattern that invites interaction and dialogue. It is a view onto and into the landscape. The project's seats transcend their tangible materiality into instruments on a playground for the composition of landscape sceneries. They can be swirled, spun, bounced, grouped and ungrouped. As such, *Seats for Seeing* is a conversational technology. It is centring, as it draws the audience into conversation and dialogue. Its ever-evolving pattern embraces and reflects the unknowns of Beikeng, and as such, it is a technology that assists us in learning to float.

Acknowledgements

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