

Poetry in design

Citation for published version (APA):

Marti, P. (2015). Poetry in design. In L. L. Chen, T. Djajadiningrat, L. Feijs, J. Hu, S. Kyffin, L. Rampino, E. Rodriguez, & D. Steffen (Eds.), *Design and Semantics of Form and Movement DeSForM 2015 Aesthetics of interaction: Dynamic, Multisensory, Wise, 13-17 October 2015, Milano, Italy* (pp. 48-56)

Document status and date:

Published: 01/10/2015

Document Version:

Publisher's PDF, also known as Version of Record (includes final page, issue and volume numbers)

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.tue.nl/taverne

Take down policy

If you believe that this document breaches copyright please contact us at:

openaccess@tue.nl

providing details and we will investigate your claim.

Patrizia Marti

University of Siena, Department of Social, Political and Cognitive Science, Siena, Italy,
and Eindhoven University of Technology, Designing Qualities in Interaction Group,
Department of Industrial Design, Eindhoven, The Netherlands
patrizia.marti@unisi.it

Poetry in design

Abstract

This paper describes an attempt to use poetry in design as an access door to experience cultural elements and embed them in the design of meaningful aesthetic interactions. Not only do poems tell a story, but their language and the way they play with the subtleties of that language also tell us a lot about cultural values, feelings, beliefs and judgments. This approach is exemplified by reporting on an educational activity carried out in the “Cultural Sensitivity” module of the Master’s Degree Program in Industrial Design at Eindhoven University of Technology (TU/e). By illustrating and discussing actual implemented students’ projects, a conceptual framework for employing poetry in design is provided.

Keywords

Poetry, Aesthetics of Interaction, Showcases, Interaction Design.

1 Introduction

This paper is a contribution to the field of Aesthetics of Interaction. It focuses on exploring methodologies for experiencing cultural elements and transforming them so as to endow design with new aesthetic significance. The field of Aesthetics of Interaction has come to maturity in recent years. It consolidates the idea that, in response to a change in the use of interactive technologies, traditional HCI concepts of usability,

efficiency, productivity must be enriched with other values such as curiosity, intimacy, beauty, emotion and affection [1].

Fogarty et al. [2] regard the notion of aesthetics as a result of the properties of form as perceived visually, as the use of attractive materials, and as “an added bonus” pertaining to the object per se isolated from the context of use. Other researchers consider aesthetics as having socio-cultural connotations, as a result of human appropriation of the object, a socio-historical appreciation of different components (materials, forms) and properties that do not inherently pertain to the object itself [3].

Wright et al. [4] recognise the active role of the user, who brings as much to the interaction as the designer does. The focus on sense-making and the acknowledgement that it concerns not just the cognitive but also the sensual and emotional threads of experience provides a means for interpreting interaction as aesthetic engagement.

From a similar viewpoint, Löwgren [5] stresses the need for holistic, interpretive approaches to dealing with aesthetics in interaction design. Wallace et al. [6] explore the notion of enchantment by arguing that beauty can play a fundamental role in facilitating our experience with digital technologies. Hummels [7] argues that designers should strive to offer rich and authentic contexts for experience, rather than just beautiful products.

Djajadiningrat et al. [8] introduce the concept of beauty in use, to highlight that products that look aesthetically pleasing from a traditional industrial design point of view may frustrate users who start interacting with them. Unlike that part of the design community that reasons from usability towards aesthetics, to minimize the negative impact that poor usability can have on perceived aesthetics, Djajadiningrat et al. [8] start with designing aesthetic interactions to improve usability, with the aim of tempting people to engage in interaction, but also encouraging them to persevere in interacting. To this aim they identify different factors that play a role in aesthetics of interaction, including interaction patterns, richness of motor actions and freedom of interaction.

This paper addresses aesthetics from a similar stream of thought, illustrating a methodological approach to designing aesthetic interaction using poetry as a driving force.

We first provide an overview of research on poetry in design. We then describe our experience working with poetry to grasp cultural subtleties and turn them into actual designs. We will exemplify our approach through showcases of implementations of projects by students who attended the “Cultural Sensitivity” module held in the Master’s Degree Program in Industrial Design at TU/e.

Starting with analysis of poems in different languages, the design process evolves from abstract themes to the sensory realm of experienceability, going from the abstract to the concrete, and therefore developing design expertise. Abstract poetic concepts are turned into concrete poetic product design through incremental implementation phases: experiencing poems, translating poems into different languages, developing mood boards, conceptualizing the abstract, and making/fabrication showing how meaning and form in poetry are transferred and integrated into design.

2 Related work

Poets and artists both possess the abilities of thoughtfulness and observation, through which they transform existing imageries into a novel language of meaning and emotions.

Tu [9, p. 28] suggests that poetry is a world of beauty in imagination by which a poet uses words to create authentic experiences.

Poets play with language in order to get to the magic

of life and the human experience. Their poems allow us to see how people think and act in all sorts of environments, what they feel and how they behave. They are source of knowledge and inspiration about life. Recently, some researchers and design practitioners have started to reflect on the relationship between poetry and design and the actual use of poetry in design. Beatty et al. [10] interviewed poets about their creative practices and conducted a thematic analysis comparing these practices to key findings concerning the nature of design expertise. The results of the study revealed similarities between poetry and design, related to the use of “sources of inspiration”; the involvement of “primary generators” or initial concepts to constrain the space of possibilities [11], and the interplay of problem and its potential solution, which “co-evolve”. Some interviewed argued that much of the difficulty surrounding the process of poetry composition derives from the inherently ill-defined nature of the task. Rittel et al. [12] named ill-defined problems as “wicked problems”, to mean something that is not docile, amenable or meek to handle. Wicked problems require a highly iterative and incremental revision process. This makes design and poetry highly conjectural in nature, exploratory and incremental.

Kolko [13] recognises a unique role of poetry in sensing, seeing, and feeling the world. *“A poetic interaction is one that resonates immediately but yet continues to inform later - it is one that causes reflection and that relies heavily on a state of emotional awareness. Additionally, a poetic interaction is one that is nearly always subtle yet mindful”* [13, p. 76].

For Kolko [13], a product that affords poetic interaction has three main features: attention to sensory details and a high degree of visual and material refinement; honesty, that is integrity to the business vision, to materials and to people; mindfulness, in the sense that poetic interaction demands attention in the same way in which poetry requires effort in reading and creating the lyrics. Kolko’s main contribution is to have provided an initial abstract definition of poetic interaction, even if not exemplified by actual designs derived from poetry. Moli et al., [14] adopted a more operational approach by developing a model that illustrates the process for extracting cultural elements from poetry and converting them into a design. They illustrate their methodology articulated in actual implementation steps. The overall process is inspired by a number of features of Chinese

poetry and is mainly focused on visual design and representation of 3D products.

A different standpoint was taken by Lin et al. [15], who defined poetic interaction design as design conveying an image with an ambiguous expression, causing flashbacks originating from a person's experiences. For Lin et al. [15], uncertainty and ambiguity are the key to conveying a poetic image in interaction, and the possibility of transferring a poetic image depends on participants' inherent ability of gestalt. Poetic interaction therefore implies the designer's ability to create an implicit expression that invites users to interpret it with common sense or with their own experiences. This stimulates sense-making, reflection and participation.

As it is possible to guess from the literature mentioned above, research into poetic interaction is still in its dawn. Some practitioners recognise the potential of using poetry as the next step beyond the aesthetics of interaction. Some of them reflect on the use of poetry in design from a theoretical viewpoint, while others strive to define operational guidelines for realizing poetic interactions.

This paper is a theoretical and methodological contribution to the field of aesthetics of interaction. The approach uses poetry as a tool for experiencing cultural elements and embedding them in the design of meaningful aesthetic interactions with concrete products.

3 Cultural sensitivity

At present, we are still in the process of investigating and refining both the conceptual framework and the methodological approach to stimulating cultural sensitivity in aesthetic interaction design through the exploration of poetry. Besides our own design work and research in the field [16, 17], the approach has been adopted as inspiration and input for synthesis in related student design projects.

In what follows we present showcases of the "Cultural Sensitivity" module, co-lectured by Patrizia Marti and Ward van der Houwen. Based on the student's craftsmanship and their different cultural and educational backgrounds, the showcases opened up a reflection on cultural values, differences and subtleties of interaction.

The students' learning activity held "Making" in its core. The students were encouraged, through cycles of reflection-on-action, to develop their personal

understanding of poetry, to transform it into design probes, and to present the final designed artefacts to classmates, inviting them to bodily engagement and reflection.

The vision of the module is closely connected with reflective practice [18] and craftsmanship, where knowledge is acquired through the exercise of craft-inspired learning practices throughout design and fabrication processes [19].

The module started with a master class on "reading and writing poetry" by the famous Dutch poet Jan Glas, who writes poems in Gronings dialect: a lingua franca to all participants characterized by a typical accent and vocabulary, which differ strongly from other Low Saxon dialects. He was invited to kick off the module and to perform his own poems. Glas explained that his approach to poetry was mainly a conversion of a feeling or a mental image into words, which in turn left the reader room for interpretation and expression. He used words with nuanced meanings to allow the reader's imagination to run wild and form a feeling, meaning or image independently. He highlighted the active role of the reader in experiencing and making sense of the poem. Students were exposed to an intense investigation of poetry to address the sensuousness of the perceptual experience and the value-related message of the poems at hand. In order to appropriate the meaning of the poems, they were invited to translate the poems into their own language. Dutch students translated from the original Groningen dialect into Dutch, while foreign students translated an English version of the poems into their own languages.

Translation was the first step in a double transformation process: from one language into another (the student's mother tongue) and from that into design. It was a craft activity in which the translator had to develop the skills not only to "transport" words from one language to another, but also to be carried away in a deep, meaningful relationship with the text.

The translation was performed twice: the first time on Glas's poems with the purpose of familiarising students with different styles of translating, and the second time on poems that the students selected on their own as the most promising with respect to the topic of the module. The main source used by the students to select poems was <http://poetryinternationalweb.net/>, a literary organisation that delivers quality poetry worldwide, encouraging translation.

Students had to recite the selected poems many times, with the aim of incrementally developing their sensitivity and sense-making. The poems shared common themes and values, depending on the topic of the module. Students extracted values from the poems and translated them into mood boards which, in turn, were used as the basis for designing probes. The exploration of design probes was used to build a working prototype.

4 Showcases

Below we present four showcases. The first two resulted from a one-week module whose topic was “Everyday activities and objects”. The third and fourth showcase were developed in a previous edition whose topic was the sensory experience of touch and taste.

4.1 Mirror

Mirror is a social networking platform that proposes a new form of digital communication. The project was developed by T. Luu, K. Scheltenaar, S. Mouthaan and A. Jense. Students selected three contemporary poems as a source of inspiration: “Mirror” by Sylvia Plath, “Writing A Curriculum Vitae” by Wislawa Szymborska, and “Interpretations” by Mourid Barghout. The poems shared common themes and values. They were about expressing personal meanings interpreting a situation from different viewpoints. They focused on taking multiple points of view and multiple perspectives to experience life in all its richness, and to express them with a subtle articulation of language. Among the three poems, the students focused on Mirror by Sylvia Plath. The following is an excerpt:

*I am silver and exact. I have no preconceptions.
Whatever I see I swallow immediately
Just as it is, unmisted by love or dislike.
I am not cruel, only truthful---
The eye of a little god, four-cornered.
Most of the time I meditate on the opposite wall.
It is pink, with speckles. I have looked at it so long
I think it is a part of my heart. But it flickers.*

The poem was translated by each member of the group into Dutch, since all the students were Dutch. The translations were all quite different. They were compared and analysed to get a shared meaning. In the poem, a mirror presents itself and its owner. The mirror first describes itself as an object, “silver and

exact” with a four-cornered eye. The object is therefore humanized: it swallows what it sees and reflects that image back without any alteration. The owner needs the mirror to provide her with an objective, unadulterated reflection of self, even though it is often discomfiting. Sometimes the mirror looks across the empty room and meditates on the pink speckled wall across from it. After the analysis and conceptualization of poems, students identified values and translated them into moodboards (Fig. 1), which in turn were the basis for design probes.



Fig. 1. Moodboards: images of self (top); a mirror that does not reflect reality (bottom).

The poem is about images, reflection on self and viewpoints. Students reflected on the image that people create of themselves when using social media. Analysis of the poems made the students aware of the limited expressivity of today’s social media. Functional non-aesthetic principles are used in social networks, particularly those that rely on documenting the minutiae of real-life. Today’s social media networks convey a limited iconic dialect using emoticons. This impoverishes language, eliminates any form of difference and infantilises expressivity. The final prototype consisted of a rich typing system to make a conversation expressive. It used pressure on the keyboard and the duration, speed and pace of typing

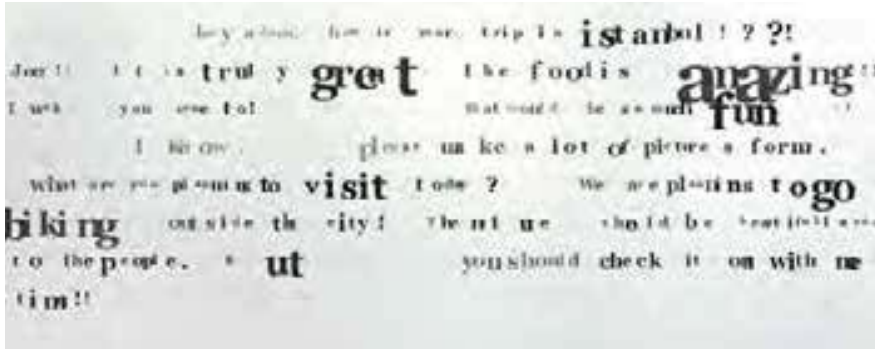


Fig. 2. A conversation on Mirror

as input to vary the typography of the conversation. Pauses in typing were reflected in the final text. All these elements were expressed in the chat, resulting in a landscape of letters and words with clear aesthetic qualities (Fig. 2).

The end result was a meaningful visual translation of contents that conveyed not just the meaning of words and phrases, but also the expressivity of typing, the pace of thinking and the emphasis put on certain words, which were displayed with a bigger font when typed slowly but firmly. The process of information design included not simply the text space. The special organisation of elements within it made sense and it was perceived as a contribution to the meaning of the whole reading and writing experience. Mirror aimed to provide a continuum between expressivity and movement, creating the context for a physical modality for generating meaning. A person could use the platform to express meaning beyond words and was, in turn, influenced by the platform itself. The objective was to provoke reflection among people about the way individuals express themselves through social networks. The platform can be tried out at the following link: <http://www.trieuvy.nl/mirror/>

4.2 Tapestry

Tapestry is an interactive curtain that accompanies the experience of waking up in the morning, harmonising the qualities of the indoor and outdoor environment with the morning ritual of awakening. The project was developed by T. Raijmakers, J. van der Meij, and J. Dabekaussen. Students selected two poems: “This Morning” by Esther Morgan, and “Zo scheidt ze stilte” (“So it creates silence”) by Jan Glas.

The following is an excerpt from “This Morning”, the poem that was selected by the students to guide the design process.

*I watched like one bedridden for a long time
on their first journey back into the world
who finds it enough to be going on with:
the way the sunlight brought each possession in turn
to its attention and made of it a small still life:*

As in the previous project, the translations differed in style and language. Differences were compared and used to stimulate sense-making.

In the poem, the narrator feels ‘bedridden’ and puts himself in a position of renewal. The sunlight embraces objects, making them worthy of notice.

The students developed a video moodboard, showing how morning light can modify perception of objects under different circumstances. From the moodboard they derived the challenge of the project, which was to design an artefact that could offer a rich experience of awaking, making the world worth rediscovering every day. By focusing on the daily habit of a morning ritual and using the bedroom as context, students developed probes inspired by the way the sunlight illuminates objects. The probes simulated the sun coming and going, and set a spotlight on different objects, giving these mundane things a mesmerizing effect.

Material exploration was carried out to appreciate the effect of light going through different surfaces and materials. As a final prototype (Fig. 3), students developed a sensorized dynamic curtain that could play with sunlight. The end result was a relatively complex projection that aimed to provide a mesmerizing, mindful feeling while triggering curiosity about the outside world.



Fig. 3. Final prototype

While curtains nowadays are opened straightforward on the vertical or horizontal plane, this curtain opened up gradually, fragmenting in interplay with indoor and outdoor light conditions. This afforded a sensory, emotionally charged and awesome experience.

4.3 Invisible touch

This project was developed by D. Peverelli, M. Brinkema, M. Rademakers, and D. Oogjes. The assignment consisted in analysing poems focusing on the sensory experience of touch, and through this coming up with a poetic probe for interaction.

The following poems were selected: “View with a grain of sand”, by Wislawa Szymborska; “Het Water” (The Water), by J. Bernlef; 605, by Emily Dickinson.

Unlike the previous project, all three poems were used equally in the design process. In the following, we report an excerpt from 605, by Emily Dickinson, to give a flavour of the insights derived from a special kind of touch played by a spider described in the poem.

*The Spider holds a Silver Ball
In unperceived Hands
And dancing softly to Himself
His Yarn of Pearl -- unwinds --*

*He plies from Nought to Nought
In unsubstantial Trade
Supplants our Tapestries with His
In half the period*

Two concepts arose from reading and translating the three poems: intangibility (touching without touching), and humanization of objects (giving human qualities to objects or materials that are inhuman). After experimenting with different materials and the



interactions that people can have with them, students were fascinated by soap bubbles and their similarities with the qualities described in the poems.

Analyzing the poems resulted in a moodboard containing an exploration of suitable interactions with different materials and surfaces. While material touch was afforded by different surfaces, the immaterial or invisible touch, which is intangible, was afforded by the behaviour of “untouched” objects (e.g. bubbles). For instance, blowing a bubble makes it animated, with its own behaviour, dictated not only by the intensity of breath, but also by environmental conditions (Fig. 4). The behaviour of the bubble, in its unpredictability, shows agency. The bubble resembles a life-like character.



Fig. 4. Exploring interactions with soap bubbles

The final prototype was an interactive wall, an artistic installation composed of interactive “bubbles” inflated with air (Fig. 5). The amount of inflation was determined by the presence of people touching them. Different behaviours of the bubbles were designed: the docile bubble followed the touching hand, the escaping bubble deflated in presence of the hand, the erratic bubble made unpredictable choreographies inflating and deflating to tease the hand. The soft material used for the installation created a poetic, aesthetically engaging and fun interaction.



Fig. 5. Final prototype of interactive wall

4.4 Get close

This project was developed by A. van Ranst, L. Hermans and S. Yamada. The assignment consisted in analysing poems focusing on the sensory experience of taste. The following poems were selected: *The Onion*, by Wislawa Szymborska; *Boomgaard (orchard)*, by Bart Moeyaert, *Mephistopheles Epicureus*, by Albert Verwey, and *Dishes of Summer*, by Ritsuko Hoshino. All the poems were about the experience of taste. The students focused on “*The Onion*” by Wislawa Szymborska, an ironic and beautifully written piece describing how an onion is different from most things insofar. The following is an excerpt.

*the onion, now that's something else
its innards don't exist
nothing but pure onionhood
fills this devout onionist
oniony on the inside
onionesque it appears
it follows its own daimonion
without our human tears
our skin is just a coverup
for the land where none dare to go
an internal inferno
the anathema of anatomy
in an onion there's only onion
from its top to it's toe*

The poem is about pureness, admiration, desire to be perfect, to be “onionesque”. The onion is perfect; its heart is nothing else than pure onionhood. Szymborska describes an onion with words that contain the word onion: onionhood, onionist, oniony, onionesque, daimonion, and onionoid. The use of these descriptive words, while playful and poetic because of the assonance of the *on* or *un* sound, does not help us better understand what an onion is – it only shows us that an onion is different from other things.

The students composed their moodboards from cutout video animations on the poem presented at the Choreographic Captures competition in Munich 2012. The essence of the moodboard was that the onion is perfect but perfection doesn't exist on its own. The same stands for taste. It is a layered experience that is shared with all senses. The combination of the layers makes it perfect, not just one layer.

Inspired by the poem and the moodboard, students explored different layered objects, focusing on flipbooks. The designed probes were a series of flip

Fig. 6. Flipbook prototype



books with geometric pictures that gradually varied from one page to the next, so that when the pages were turned rapidly, the pictures appeared to animate by simulating motion or other changes. The final prototype was a menu designed as a flipbook with slightly different images of the same dish. When the pages were turned rapidly, the smell wafted around (Fig. 6). The person could even lick her fingers after browsing the flipbook and experience the taste of the dish. The experience of taste resulted from a complex sensory combination that engaged all the senses in search of the perfect taste.

5 Discussion and conclusive remarks

In this paper we described our research on poetry-inspired design. The objective of this research is to stimulate sensitivity toward cultural subtleties of interaction, and to endow design through the lens of poetry with new aesthetic significance.

Poetry is a differentiator, and a true alternative to merely functional design. It is not a commodity, but something that does make us reflect on what we do and how. Poetry enables an indirect language, in which what speaks is not the established meaning but rather a new order of sense and expression. Moreover, the meaning of a poem does not dissipate when expressed. It is made lively, persistent and significant by those who experience it. The more a poem is read, the deeper is the meaning, subjected to new interpretations.

Poetry is about thoughtfulness and observation, and the human experience described in the language of poetry is never destined for banality. The showcases described above showed that poetry could provide a framework to create rich, sensory, beautiful, engaging and mindful interactions through design. A common aspect of the showcases was the embodiment of sensing, acting and feeling. This was partly afforded by the aesthetics of material and the way it was used. For instance, in *Mirror*, expressiveness was embodied in the way people typed on the keyboard; the act of writing and the expressiveness of the gesture were not separated. In *Invisible Touch*, the quality of the experience was partly enabled by the materials and partly by the active (humanized) behaviour of the object. The person and the artefact perceived each other, so that the two engaged in active dialogue.

Get Close offered a good example of an ill-defined problem, in which the comprehension of the problem and its potential solution co-evolved in the design

process, informing each other. The concept of perfection based on a layered sensory experience opened up space for probing and stimulating an original design.

Overall, the “Cultural sensitivity” module was both an educational activity and an instance of research through design, a designerly way of doing research, in which prototypes, iterations and future visions were integral parts of the research method. With this research, we aim to provide a theoretical and methodological contribution to the field of Aesthetics of Interaction, exploring poetry as a source of inspiration and a tool for synthesis.

Acknowledgements

I would like to thank Ward van der Houwen, poet and collector of Cultural Sensitivity. Special thanks to Jan Glas for being a precious source of inspiration for our students.

References

1. C. Overbeeke. The aesthetics of the impossible. Inaugural lecture. Eindhoven Technical University Library (2007).
2. Fogarty, J., Forlizzi, J., Hudson, S. E. Aesthetic information collages: Generating decorative displays that contain information. In Proceedings of the 14th Annual ACM Symposium on User Interface Software and Technology (pp. 141-150). New York: ACM (2001).
3. Petersen, M. G., Iversen, O. S., Krogh, P. G., Ludvigsen, M. Aesthetic interaction: A pragmatist's aesthetics of interactive systems. In Proceedings of the 5th Conference on Designing Interactive Systems (pp. 269-276). New York: ACM (2004).
4. Wright, P., Wallace, J., and McCarthy, J. Aesthetics and experience-centered design. *ACM Trans. Comput.-Hum. Interact.* 15, 4, Article 18 (2008).
5. Löwgren, J. Five things I believe about the aesthetics of interaction design. Position paper for Dagstuhl seminar on the study of visual aesthetics in HCI (2008).
6. Wallace, J. Press, M. All this useless beauty: The case for craft practice in design for a digital age. *Design Studies* (2004).
7. Hummels, C. Gestural Design Tools: Prototypes, Experiments and Scenarios. Unpublished Doctoral Dissertation, Delft University of Technology, Delft, the Netherlands (2000).
8. Djajadiningrat, T., Wensveen, S., Frens, J., Overbeeke, K. Tangible products: Redressing the balance between appearance and action. *Personal and Ubiquitous Computing*, 8, 294–309, (2004).

9. Tu, K. C. *Defining poetry and critiquing poetry*. Taipei: Taiwan University Press (2010).
10. Beatty, E. L., Ball, L. J. Investigating exceptional poets to inform an understanding of the relationship between poetry and design, *Proceedings of the Second Conference on Creativity and Innovation in Design*, October 19-21, Eindhoven, Netherlands (2011).
11. Darke, J. The primary generator and the design process. *Design Studies*, 1, 36-44 (1979).
12. Rittel, H., Webber, M. Dilemmas in a General Theory of Planning, *Policy Sciences*, 4, Elsevier, 155-169, (1973).
13. Kolko, J. *Thoughts on Interaction design* (2nd edition). Morgan Kaufmann, MA:USA (2013).
14. Moli Yeh, H., Chiu Wei, C., Rungtai L., *Employing Poetry Culture for Creative Design With Six-standpoints*. *Proceedings of Design Research Society 2014, DRS 2014: Design's Big Debates*. Umeå, Sweden, June 16-19 (2014).
15. Lin, Y.-C., Chang, H.-M., & Liang, R.-H. (2011). *Designing Poetic Interaction in Space*. In J. Jacko (Ed.), *Human-Computer Interaction. Towards Mobile and Intelligent Interaction Environments SE - 63* (Vol. 6763, pp. 559–568). Springer Berlin Heidelberg. doi:10.1007/978-3-642-21616-9_63
16. Marti, P. *The Subtle Body*. Eindhoven Technical University Library, ISBN: 978-90-386-3714-3. (2014). Available at: <http://alexandria.tue.nl/extra2/redis/marti2014.pdf>
17. Marti, P. In praise of beauty and enchantment: setting the scenery of respectful design. *Proceedings of the International Conference on Multimedia, Interaction, Design and Innovation, MIDI 2014*, 24-25 June, Warsaw, Poland. Pp 1-6, ISBN: 978-1-4503-2779-4 doi>10.1145/2643572.2643574. (2014).
18. Schön, D. *The Reflective practitioner*. New York: Basic Books (1983).
19. Sennett, R. *The Craftsman*. London, Penguin Books (2008).