Jun 25th, 9:00 AM

Design as posture: Developing enlightened subjectivity with the philosophy of yoga

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Abstract: This research aims at supporting designers in developing a both embodied and reflective posture in practice – referred to as "enlightened subjectivity". A dialogue is set up between the Samkhya, an early Buddhist philosophy at the basis of Yoga, and the design discipline. Grounded in practical experience, this inspirational framework allows approaching the sense-making process occurring in practice, through perception, understanding, action, and relation. This is sustained by professional posture, the specific way in which one invests their activity, giving it substance, meaning and justification. Implications for design education relate to increasing awareness among designers on their own posture and learning to adjust it in different situations to achieve union – the meaning of "yoga". Reflection is prompted on the use of tools and methods, on the meaning of action in design, and on the development of professional identity.

Keywords: professional posture; embodiment; experiential knowledge; reflective practice

1. Introduction

It is common sense to define design as a projective activity, using abductive thinking to identify and address complex issues (Simon, 1969/1996; Rittel & Webber, 1973; Archer, 1979). Designers' evaluation is partly determined by emotional and affective provisions, involving one's culture, personal history, cognitive style, or view of the world (Dewey, 1935/1958; Hennion, 2007; Lawson & Dorst, 2009). Alessandro Mendini regarded designers as seismographs, vibrating and expressing what their individuality records from human phenomenon (Mendini, 1984). This quote refers to the designerly way of engaging with the world, as one's personal sensitivity meets others. It outlines a specific professional posture – defined as an embodied way to invest one's activity and give it substance, meaning and justification. For designers, expected to be experts of human experience, this raises two corollary challenges.

On the one hand, while the inevitably subjective dimension of design practice has widely been acknowledged, discomfort remains in practice. When it comes to justifying their choices, many designers are torn between the "black box" of intuition and affects, and the supposed rigour of technical or conceptual rationales. Discourses based on subjectivity are often dismissed by the "left-brained" stakeholders in decision-making, which results in pigeonholing designers as "dreamy poets". Paradoxes relating to designers' positioning between the realm of sensation and the intellect come out as a recurring theme in practice and research. Should we mimic the dominant cognitive style or revendicate our own? How to make our voices heard – which are the ones of the human and non-human stakeholders impacted by design choices?

On the other hand, empathy is often claimed as a core design competence, but switching from "first-person" to "third-person" perspective and becoming able to perceive a situation in novel ways is not natural to adults trained to rationalize – even designers. Rather than relying on standardised methods (such as personae), how to open to people's actual experience? How to use our perceptive attention and bodily sense for accessing novel points of view?

These two challenges are intertwined, since acknowledging the singularity and relativity of one's point of view is the first step towards recognizing what is, or could be, other. Obviously, this does not dismiss the need for rigour in forging one's understanding of a situation. In a perspectivist approach, openness to diversity goes with an effort to critically assess and put things in perspective. "Enlightened subjectivity" represents the shift towards such meta point of view allowing to get involved and make thoughtful choice.

This developmental process often remains intuitive and somewhat nebulous in design education. Yet, more than acquiring skills, education is expected to prepare designers meet the world in an appropriate manner – with "practical wisdom", to recall the Aristotelian concept of *phronesis* associating intuition and ability to discern how and why to act. Part of a research project aiming at supporting designers' reflectivity (Schön, 1983), this study focuses on "enlightened subjectivity" as an embodied posture enabling to understand, decide, act, and relate, in a both profound and intuitive manner. This is investigated through the lens of the Samkhya, an early Buddhist philosophy at the basis of Yoga. Its holism and grounding in practical experience provide inspiration for a dialog with the design discipline, regarding the positioning of practitioners.

2. Enlightened subjectivity

Framing observation, diagnostic, and ideation activities are all turning points in a design project. Acknowledging that many perspectives are equally valid and yet incompatible, that objectivity is not an option, raises the question of choice. This was referred to as a "blind spot" in a previous article (Berger, 2019a), drawing upon the work of social scientist Kurt Lewin and recent research on brain plasticity and neurophenomenology. The blind spot of psychological experience is the inner place from which our attention, intention, and action

originate when we engage with others and with ourselves (Flowers & al., 2005; Scharmer, 2017). Not only are there different vantage points, there are also different ways of "looking", different ways of considering what is to be "seen". Each tool or medium is a distorting filter, enabling while constraining perception. This is perfectly explained by the concept of affordances (Gibson, 1979/1986), although often dismissed by designers in their own activity. How to choose, use and combine tools and media in a reflective manner? How to obtain as detailed and comprehensive a picture as possible of a situation? How to engage different perspectives with a critical distance, including one's own? Here are the ethical questions sustaining the development of enlightened subjectivity in practice.

Designers are considered experts of human experience. With the help of the Human and Social Sciences, our discipline has tools and methods for field observation and analysis, systems modelling, ideation, and prototyping – all phases being approached from an "empathetic" perspective. The concept of design empathy was coined by architect Richard Neutra, amounting to regard design intervention as the result of an analytical therapeutic relationship (Midal in Francès, 2003). Designers' professional empathy lies upstream (in inquiry and ideation), downstream (in crafting propositions for people), and in the collaborative process of designing. In any case, it means getting involved and suspending judgement to recognize that people are experts in their lives (Bason, 2010).

But are designers trained to adopting such a third-person perspective without any preconception? Considering that the blind spot of one's own positioning and experience always remain at the core, this would require designers including themselves in the systems they map. Or, in other terms, shifting from an "environmental" perspective to a more holistic consideration for the "medium" or "milieu" in which we are all embedded – from *Umgebung* to *Umwelt* in biosemiotics words (Von Uexküll, 1934/2010). Such way of thinking echoes deep ecology, a philosophical courant formalized from Eastern religious practices, Gandhian nonviolent direct action, and Spinozan unity systems (Naess, 1973). It invites to profoundly question the purpose and meaning of existence, until realizing that life is fundamentally one. Experiencing interconnectedness is expected to nourish a more sensitive relationship with the world. For designers, this means no longer acting as agents shaping an outside world, as they precisely belong to this world. This requires changing point of view, to enlarge perception, think holistically, and act wisely. While this might sound obvious, how to make that change in attitude?

3. The Samkhya, a model for reflexive practice

Although several millennia old, the philosophical foundation of Yoga might provide inspiration for today's designers. A point is made that this study does not aim to promote "Western Buddhism" as an ideological fetish (Zizek, 2001). Rather than a doctrine for truth, reference to the Buddhist philosophy is associated with a hermeneutic imperative to question and interpret reality. It represents a horizon of meaning, inviting to take responsibility for our lives, and open to a wider dimension of being. More specifically, Yoga

does not refer to sole body practice. It is a manner of being here and now, while acquiring a distance from full immersion into ordinary life. It is about changing the perspective of the observant until developing an overall quality of experience in every gesture. This is how a parallel with design practice should be understood, addressing the designerly way of perceiving, understanding, acting, relating, and building knowledge. A brief historical overview will give a better idea of the whole framework.

The Samkhya is an early corpus closely linked with the theory of Yoga, developed by the Hindu scholar Patanjali. Collected around the 2nd century BC, it has an affinity with Dzogchen Buddhism, which will develop around the 8th century in Tibet[1]. They both share a non-religious approach rooted in non-dualism, full awareness in experience, leading to deep and acute capacity to discriminate. The Samkhya model entangles a psychological and a cosmological standpoint. It thus proposes to explain how both our inner and outer world occurs to consciousness, how it unfolds, allows for experience but also detachment from the material dimension of life. Initially built on disparate pieces, this ethos developed as a philosophy, with epistemological and logical foundations. The assimilation of certain texts by various religions and schools of thought does not prevent a non-partisan reading.

Grounded in the concrete world, the Samkhya values practical wisdom over speculative thinking. This is particularly notable in the richness of the lexical field used in Patanjali's Yoga Sutras to refer to and qualify human experience and knowledge. A structural distinction is made between the activity of the mind (a potentially misleading source of knowledge), and the intimate experience of unity with the world (leading to clear perception, consciousness, and wisdom). The almost 200 Sutras strain through a fine sieve what "understanding" means, and this is synonymous with embodied sense-building.

The Samkhya can be considered an analytical framework providing guidelines for action. In a similar approach, the Chakra model was used in a previous article for its holistic and metaphoric properties to investigate designers' embodiment in practice (Berger, 2020). Each state of consciousness was linked to attitudes and tools, all working together as an integrative framework to support designers' self-questioning. Following this step, detour through the Samkhya philosophical model, and the associated practices of Yoga, is meant to inspire designers, moving from the singular to shared concerns in our research and practice community. It is used here as an intermediate object for interpretation. For those not familiar with Eastern philosophies, it invites opening to another logic and other anchor points, decentring, which allows for new connections to arise. As an object of study, it offers an *aisthesis* of what could not be perceived otherwise, elevating the conceptual issue to the rank of an experience (Citton, 2012). Could we use the Samkhya and the practice structure of Yoga to formulate hypothesis, craft possibilities, and experiment new postures?

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[1] Over 2500 years of history, Buddhism has branched off into several streams of thought reflecting different socio-cultural contexts, which we will not discuss in more details here. It seemed relevant though to root the Samkhya model in its conditions of emergence.

Table 1.   *The philosophical framework of Samkhya and its resonance with design practice*

	Posture	Perception	Understanding	Action	Relation	Knowledge
Samkhya philosophy / Yoga practice structure	Mindfulness (*sati*): - Accepting what is - Discriminating between events, and opinions, ideas, or concepts - Adopting a beginner's mind, seeing the void as potential	The phenomenal world brings polarities into play (mind/body, subject/object, in/out...). Awareness in experience allows overcoming any dual perspective.	More than mere mind activity, understanding is related to experiencing unity. *Vipassana* (deep insight) brings consciousness about one's judgements, illusions, and limits.	Engagement and detachment: the results of action can't be claimed as one's own. This creates distance with the self, developing one's ability to dare and take risks.	Nothing can be owned, even ideas. True experience hence involves unity with other beings and the world.	Education aims at incorporating *yamas* (relational virtues) and *niyamas* (personal virtues). Knowledge is achieved with *vishesa* (faculty of discernment) and *atma* (connection with the world).
Affinities in Western philosophies	*Époché*: suspending judgement, distancing from both imagination and reasoning (Husserl)	Embodied cognition (Damasio, Varela & al.) Motility: 'gut feeling' in experience (Merleau-Ponty)	Abductive thinking (Pierce) Hermeneutics: understanding is a transformative event (Gadamer)	Action research (Lewin) Hermeneutics: practicing before theorizing (Gadamer)	Intersubjectivity (Habermas, McGuire) Dialogue as exploration (Bohm) Resonance with the world (Rosa)	Experiential knowledge as a spiral process of transformation (Dewey, Kolb, Lewin) Sense-building as an existential dynamic (Schnell, Galvani)
Insights for design	Full presence surpasses mastery	Accepting to be affected, transformed along the way	Combining preparation and intuition	Building bridges between fields of knowledge, and between theory and practice	Developing emotional and social intelligence	Deploying reflection in and on action (Schön), towards practical wisdom

This synthetic table makes clear that all dimensions of experience are intricated, participating in the literal meaning of *yoga* in Sanskrit: "union". Through the process of cultivating practice and detachment, one gradually transitions from superficial to deeper comprehension, leading to a feeling of joy, unity, and total awareness in experience. In this line, knowledge does not refer to skills acquisition, but an ethos through which each practitioner develops a singular and meaningful way to stand, relate and act in the world. As expressed by its Indo-Germanic root *sent* – "pursuing a track", sense is an embodied construct, a guiding thread weaved by and for oneself.

In resonance with phenomenology and hermeneutics, this builds a whole philosophy of practice where the notion of posture stands out, in its dual meaning. On the one hand, it refers to the *asanas* practiced in Yoga, or the somatic part of practice. These poses are firstly built through alignment of the body, then settled in, which allows working on and affecting the feeling / behaving / thinking / breathing body. They aim at self-observation (or mindfulness): being curious about why we feel the way we do, why we have the experiences we have. This leads to the second meaning of posture, synonymous with an attitude prior to any change in functioning. It is embodied a meta level, sustaining any kind of practice.

4. Design as posture

According to social scientists, professional posture cannot be directly studied but approached by analysing discourse (declared posture) and observing practices (embodied posture) – both potentially being in tension (Lameul, 2016; Acker-Kessler, 2015). As a socio-cognitive dynamics deployed by individuals to adjust their environment (Doise, 1993), posture is shaped by the interplay of one's intimate experience and the impression given to others, which is subject to interpretation. It also involves tension between a momentary position, that of the event represented by any situation experienced, and the ongoing evolutionary process it reflects. In this mycelium, each person's representations, values, identity, causal attributions combine, in a dialogic relationship between the rational and the sensible (Bonnet & Bonnet, 2008). This account brings to light how complex it is to gain awareness on one's own posture and adjust it in different situations.

Bourdieu's concept of *habitus* helps framing what is at stake. *Habitus* is a durable system of dispositions internalized by individuals resulting from their life conditions, which functions as a set of patterns guiding action, perception and thinking. Compared to a "processing machine that makes us 'reproduce' the social conditions of our own production, but in a relatively unpredictable manner" (Bourdieu, 1987, p. 133), it has strong plasticity and inertia at the same time. Consequently, one's practices are never fully determined nor fully free, they result from constantly adjusting our frames in accordance with the context. This happens through *hexis* – the postures, gesture, dispositions of our bodies. To Bourdieu, *hexis* represents embodied *ethos*. Our understanding of the world would then literally inform our positioning in the field. Professional designers have no choice but acting from the central

point that is their self, to make choices considering their potential consequences and impacts.

It is important though to distinguish between an egoistic and a centred perspective. The example of "peak experiences", characterized by a state of fusion between the experiencing self and the world (Maslow, 1964), is insightful to this end. In 1990, psychologist Mihaly Csikszentmihalyi coined the term "flow" to describe such moments, which had already been described by Zhuangzi millennia ago, as he was watching a cook butchering an ox. Full immersion in experience is the same, but the interpretation differs radically: "For Csikszentmihalyi, bathed in Californian thinking (individualism, property, productivity), it is about accomplishment and competence, about self-development, about a feeling of wholeness. For Zhuangzi, it is about forgetting oneself, about surrendering to Tao, about complete vacuity. Between full and empty, closed and open, the way in which 'optimal experience' is accounted for determines [very different ends and means]" (Christian, 2011, p. 89). Interest for such moments of inner motivation, characterised by a deep feeling of joy and accomplishment, is only legitimate. The question is whether they help increasing the expression of our talents and contribution to the world, or the reinforcement of our egos. Thereupon, the dissolution of ego advocated for in Buddhism is no denial of the subjective experience, which is precisely assumed as the gateway towards true empathy. While our ego perceives the environment through its limitations (culture, thought patterns, memories…), acknowledging our blind spot enables intersubjectivity, through which our identity is shaped in an ongoing learning process.

5. Implications for design education

Investigating the philosophy of Yoga brought to light the necessary subjectivity and relativity of one's posture, which is sustained by the possibility of pluralism. This provides insights for designers willing to develop their human sensitivity and empathy. Though such concern may sound innate, a designerly attitude is also something to be learned and trained through experience. The development of professional posture is orthogonal to the project path: rather than linear progression, it demonstrates the intensification of reflectivity *in* practice. The movement made is an expansion of awareness – from the self to the world, from the visible to the intangible. In the Samkhya philosophy, Yoga means overcoming the dualisms met on this path.

By discussing what could "Yoga" – or "union", mean for design, this research aims at contributing empowering designers in their professional development, with a holistic framework for thought and action. This paper is part of a longitudinal study, referring to diverse situations met in design practice, teaching, and action research. Although it is impossible here to go into all the details, this section suggests a few directions for imbuing educational programs with such approach, at three levels. Those are as much investigation topics for design educators and reflective practitioners.

5.1 Seizing power over assigned roles (discussion on tools and methods)

Although posture is not identifiable with the roles played in the social space, it is partly determined by the personae each of us embodies, consciously or not. The notion of "persona" in design refers to a technique used to figure out the needs, aspirations, behaviors of potential users – which has been criticized for its propensity to reduce individuals to marketing targets or rational operators. Other tools from the human sciences and design research allow for deeper and more fine-grained understanding of human experience, such as "extreme personae" (Djajadiningrat & al., 2000). This exercise exposes emotions and character traits which usually remain hidden, because considered incorrect or embarrassing, but can't be disregarded as they are what makes us human. Using it at ideation phases is likely to bring designers coming up with more broad-minded propositions.

In parallel to freeing "users" from reductive or caricatural projections, designers need full awareness of the roles other stakeholders are expected them to play, in order to position themselves consciously. They are for instance increasingly called upon as mediators and/or facilitators in projects involving multiple actors, even to participatory design approaches. Such evolution demands expertise in open forms of exploration and deliberation, which may be supported by practices from the sphere of collective intelligence, like open dialogue (Bohm, 1996). Closely linked with systems thinking and theory U, it has been used to support collective change. Genuine dialogue builds on shared inquiry, exploring the process of thinking together collectively, and using the energy of differences to attain collective wisdom. More than educational, it is a transformative experience: no one owns the meaning that emerges. In the early phases of a design project, or on the fringes of a curriculum, dialogue may allow exploring uncertainties and questions that no one has prior answers to.

Even though embracing the unknown is expected to be intrinsic to the design approach, maintaining openness is a practical challenge for designers evolving in contexts where goal-directed thinking rule. A previous article made the case for design projects to "address mysteries" rather than attempting to "solve problems" (Berger, 2019b). The professional posture outlined here is the corollary of this approach, acknowledging paradoxical tensions, interdependencies, and externalities as design objects in their own right.

Practically, this above all means making creative and reflective use of tools and methods. Critical distance is part of enlightened subjectivity, as it involves overcoming one's own perspective to adopt the beginner's mind advocated for in Buddhist philosophies. "The main challenge of critical experience – which always makes it a potential crisis – consists in admitting that one does not know how to think, or understand, or feel, which is a prerequisite if one hopes to experience other ways of feeling, understanding and thinking." (Citton, 2012).

5.2 Building within paradoxes and tensions (discussion on action)

The coming societal, environmental, and systemic challenges require increased awareness and accountability for our designed environment. Designers are forced to place themselves

in the relational picture, and realise they are always present, implicated, and responsible for what is brought into being (Fry, 2009). Prior to any ethical evaluation or reflection on the purposes, means and impacts of a design activity lies practical wisdom within the process. This is played out in designers' posture, the channel through which points of view are embodied and choices enacted, in a context of inextricable uncertainty.

Indeed, no gesture, no action, is ever sure to be "right" and this condition might be paralyzing. How to handle such insecurity? The Samkhya philosophy teaches to engage in action without expecting any outcome or result. But detachment is no disengagement. It is sustained by full presence in the moment and openness to the unexpected. This echoes the pragmatist framework, which regards scientific inquiry as "knowing-in-being" (Ingold, 2018). Researchers and designers following this path are invited to suspend judgement and let themselves be caught up in experience. Decentering is a prerequisite for novel meaning to emerge, as different perspectives are brought together.

Although fertile, overcoming anchored categories and thinking patterns is obviously uncomfortable. It challenges designers' approach to projects, usually based on planning. How to preserve plural alternatives, emerging from living relationships? In Yogic terms, it is about escaping *Karma* – the chain of actions and reactions, merit and demerit, means and ends, for a different rapport falling into the scope of performative arts. In this line, "the relation of the awakened Self with its actions […] resembles that of the dancer with their gestures" (Agamben, 2018). Gesture no longer depends on expected effects or impacts. It is an expression and communication act, responsible and empowering in itself – according to the meaning of the Latin root *gerere* "to assume and to support". Obviously, gesture is not freed from paradoxical tensions (between style and substance, skill and improvisation, just to name a few). But it precisely holds a performative power able to make heterogeneous movements converge (Citton, 2012).

Design gestures may involve participatory practices with different stakeholders (clients, partners, policy makers, potential users or audiences of design propositions), potentially in all dimensions of a project:

- Investigation (on the field and metaphorical)

- Ideation and experience prototyping (Buchenau & Fulton Suri, 2000)

- Strategizing and decision making

In any case, intersubjectivity is at the core, as diverse actors experiment, improvise, share and reflect together. Gesture is the interface between the share of meaning emerging in oneself (through affects and thinking) and others (through communication practices). This interplay expresses personal freedom to act, resist, and resonate – and thus collective potential to create shared meaning.

5.3 Opening to be transformed (discussion on identity)

In this perspective, acting as designers is less about forward projection than "wayfaring", seeing along the direction in which situations are unfolding (Ingold, 2013). To a certain extent this requires an ability to leave the comfort of mastery, and surrender. From this open posture, one constitutes as a subject by experiencing things that pass through. According to Heraclitus's aphorism, "one never bathes the same river twice", and the one bearing consequences of action is neither the same nor another than the one who accomplished them. Acknowledging that we are in perpetual transformation is key to acting more and more thoroughly and justly over time. It is also a possible reading of the Buddhist "middle way", overcoming the opposition between positivism and nihilism. And a possible middle way for design practice, often caught in a double bind between humanistic utopia and consumerist exploitation.

In the long run, shouldn't any education be about teaching to experiment, adjust, and allow oneself to be transformed along the way? Educators can give prompts for students to develop their own enlightened subjectivity, over the course of design projects as well as outside. Practical wisdom unfolds as one embodies reflectivity *in* action, and contrive to harmonize the tensions and paradoxes met in practice without oversimplifying them. The philosophical framework of the Samkhya and the practice structure of Yoga offer practical cues to train our feeling / behaving / thinking / breathing body navigate in complexity and uncertainty. But maps are not the territory, and a toolbox is only useful if used by a both conscious and open mind. In this line, the most important design skill is maybe the ability to maintain a beginner's posture while developing expertise.

This dialogue on designers' posture might not result in recommending specific methods, and bring more questions than answers, but this is a stated aim. Future developments will focus on gathering and articulating insights from local and supple experimentation with this proposed framework. Reflective practitioners willing to share issues, initiatives or feedback are welcome to pursue shared exploration.

6. References

Acker-Kessler, P. (2015). *Posture professionnelle enseignante et développement de l'autonomie dans l'apprentissage des langues : une approche située* [Professional teaching posture and development of autonomy in language learning: a situated approach]. *PhD Thesis in Education Sciences.* Université de Strasbourg.

Archer, B. (1979). Design as a Discipline. *Design Studies, 1*(1), 17-20.

Bason, C. (2010). *Leading public sector innovation: Co-creating for a better society.* Oxford University Press.

Berger, E. (2020). Embodying Design Practice. Designers' Experience and the Chakra Model, in M. Evans, A. Shaw, J.H. Na (eds.), *Design Revolutions: Change, Voices, Open 1: IASDR 2019 Conference Proceedings*, 1. Manchester Metropolitan University.

Berger, E. (2019a). Two Blind Spots in Design Thinking, in G. Muratovski & G. Vogel (eds.), *Re-Research, 2*, 3-16. Intellect books.

Berger, E. (2019b). Problème ou mystère : pour le design, telle est la question [Problem or mystery, that is the question]. *Interfaces Numériques, 8*(1), 50-63.

Bohm, D. (1996). *On dialogue*. Routledge.

Bonnet, R. & Bonnet, J. (2008). Postures managériales et évolution des compétences d'encadrement et de direction [Managerial postures and development of managerial skills]. *Communication & Organisation, 33*(1), 85-106.

Bourdieu, P. (1987). *Choses dites.* Le Sens commun.

Buchenau, M. & Fulton Suri, J. (2000). Experience Prototyping. *Proceedings of the Conference on Designing Interactive Systems: Processes, Practices, Methods, and Techniques, DIS*, 424-433. https://doi.org/10.1145/347642.347802.

Christian, D. (2011). *Philosophie pour la crise du management.* Hermès-Lavoisier.

Citton, Y. (2012). *Gestes d'humanités : anthropologie sauvage de nos expériences esthétiques*. Armand Colin.

Csikszentmihalyi, M. (1990). *Flow: The Psychology of Optimal Experience*, Harper and Row.

Dewey, J. (1935/1958). *Art As Experience.* Capricorn Books.

Djajadiningrat, J.P., Gaver, W.W., & Fres, J.W. (2000). Interaction relabelling and extreme characters. *Proceedings of the Conference on Designing Interactive Systems: Processes, Practices, Methods, and Techniques, DIS*, 66-71. https://doi.org/10.1145/347642.347664.

Doise, W. (1993). *Logiques sociales dans le raisonnement*, Delachaux et Niestlé.

Flowers, B.S., Scharmer, C.O., Jaworski, J. & Senge, P.M. (2005). *Presence: Exploring Profound Change in People, Organizations and Society*. Nicholas Brealey Publishing.

Francès, E. (Ed). (2003). *L'empathie ou l'expérience de l'autre - Biennale Internationale Design Saint-Étienne 2013.* Cité du design.

Fry, T. (2009). *Design Futuring. Sustainability, Ethics and New Practice.* Bloomsbury.

Gibson, J.J. (1979/1986). *The Ecological Approach to Visual Perception*. Lawrence Erlbaum Associates. https://doi.org/10.4324/9781315740218.

Hennion, A. (2007). *La passion musicale : Une sociologie de la médiation.* Métailié

Ingold, T. (2013). *Making: Anthropology, archaeology, art and architecture*. Routledge.

Ingold, T. (2018). Anthropology Between Art and Science: An Essay on the Meaning of Research. *FIELD, A journal of socially-engaged art criticism, 11*. http://field-journal.com/issue-11/anthropology-between-art-and-science-an-essay-on-the-meaning-of-research

Lameul, G. (2016). *Le développement professionnel des enseignants-chercheurs : entre recherche et enseignement, l'élaboration d'une posture d'expertise* [The professional development of teacher-researchers: between research and teaching, developing a posture of expertise]. *Habilitation Thesis in Education Sciences.* Université Rennes 2 Haute Bretagne.

Lawson, B. & Dorst, K. (2009). *Design expertise*. Architectural Press.

Maslow, A. (1964). *Religions, Values, and Peak Experiences.* Ohio State University Press.

Naess, A. (1973). The shallow and the deep, long-range ecology movement. A summary, *Inquiry, 16*, 1-4, 95-100. https://doi.org/10.1080/00201747308601682.

Rittel, H.W.J. & Webber, M.M. (1973). Dilemmas in a general theory of planning. *Policy sciences, 4*(2), 155-169.

Scharmer, O.C. (2017). The Blind Spot: Uncovering the Grammar of the Social Field. *Huffington Post*. Retrieved from https://www.huffpost.com/entry/uncovering-the-grammar-of-the-socialfield_b_7524910?guccounter=1

Schön, D.A. (1983). *The reflective practitioner: How professionals think in action.* Temple Smith.

Simon, H. A. (1969/1996). *The Sciences of the artificial*. MIT Press.

Von Uexküll, J. (1934/2010). *Milieu animal et milieu humain.* Rivages.

Zizek, S. (2001). From Western Marxism to Western Buddhism. The Taoist ethic and the spirit of global capitalism. *Cabinet Magazine, 2*. Retrieved from https://www.cabinetmagazine.org/issues/2/zizek.php

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