The FashionSEEDS Reader

fashion
SEEDS

EKA Estonian Academy of Arts   ual: university of the arts london   POLITECNICO MILANO 1863 DIPARTIMENTO DI DESIGN   design skolen kolding DK   Co-funded by the Erasmus+ Programme of the European Union

Welcome to the FashionSEEDS Reader, an accompaniment to the FashionSEEDS platform for fashion tutors, created by a team of researchers, educators and designers from four European universities. It manifests findings from three years of collaborative research, participatory workshops and events, informed by a geographically diverse range of fashion system protagonists: students, tutors, academic leaders, industry professionals, support organisations and policy makers. It will be brought to life by those who read, learn, apply and further inform its contents and ambitions.

The Reader is a pocket book to the platform and a stand-alone reference in fashion design education for sustainability in higher education. It connects conceptual foundations of holism, ecology and equity, explored through participatory design practice, to theory and practice in education for sustainability.

It draws on a substantial body of published work and the lived experience of teaching and learning education for sustainability. Whilst the body of knowledge in education for sustainability is directly applicable to fashion, there is a paucity of work that explores the distinction of fashion, or indeed wider art and design education, for sustainability. FashionSEEDS is based in art and design education, with a focus on fashion. It offers new knowledge that can inform higher education practice, with practical applications for teaching and the development of tutors' own learning.

We invite tutors in fashion, and wider art, design and humanities disciplines, from education for sustainability and science-based disciplines, to explore the ideas in this Reader as an exemplar of ecologically centred, equity-based education.

We hope that you will share the Reader in your practice, informing and being informed by others. Thank you to those who have already taken part and to those who read, apply and adapt its contents.

We invite you to use the Reader to…

Extend your practice: on a personal, group or organisational scale.

Evaluate its resources: by exploring, applying and adapting the tools on the platform.

Apply its contents to a session, course or module and to your own reflective practice.

Share it with colleagues: join our network.

Contribute: outline impacts on your practices and students, and share in the network.

Amplify its content within your institution and with industry, NGOs and other partners.

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Why Focus on Tutors?

Tutors have a vital role in developing the ways we understand and perceive ourselves in the context of the climate, societal and personal health concerns of our times. Fashion educator roles are realised in the practices of everyday life and through wide-ranging livelihoods, activities and habits, across diverse socio-cultural contexts. Tutors are hands-on and multi-talented, moving seamlessly across a plethora of tasks, as they support and develop people, materials, products and processes. They engage in reporting, assessing and showcasing ways in which individuals, groups and a sector contribute to the world.

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Whilst there has never been more information available or more talk about sustainability, tutors are often time-poor, they lack structures for developing their own sustainability knowledge and practice, and they have limited access to high-quality, directly relevant resources created by their peers and educators in other universities. This Reader and the contents on the FashionSEEDS platform respond to the needs that tutors have identified in order to contribute to a transformed fashion system, based on foundational pillars of cultural, environmental, social and economic sustainability. The Reader recognises the 'tutor as learner' in an evolving, exploratory practice that explores the why, what, how and with whom of teaching and learning fashion in the context of our times.

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Chapter 1
Pillars of Sustainability

"Everyone designs who devises courses of action aimed at changing existing situations into preferred ones."

(Simon, H. 1969).

The premise of FashionSEEDS is that every part of fashion comes from nature. Its resources enable the creation of activities, garments, accessories and images that make up a distinctive part of our identities as humans.

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A core understanding of the limits of nature's systems, referred to as Planetary Boundaries (Rockström et al., 2009), and recognition of human equity as outlined in the Universal Declaration of Human Rights (UN, 1948), create a foundational understanding upon which environmental, social, cultural and economic pillars are built.

In respect to design and designing, we would like to qualify Herbert Simon's definition of design. The existing situations of fashion, whilst diverse in scope and location, are collectively accountable for the destruction of ecosystems, lives and loss of dignity for many involved in their activities. An understanding of what we mean by preferred is based on an understanding that sustainability is about intergenerational and intersectional climate and social justice, a sense of identity, community and ability to participate in society.

For the purposes of FashionSEEDS, an assessment of academic literature has been carried out to form pillar descriptions, drawn from multiple sources and co-written by team members. Together, they relate to the capacity for all living beings to flourish within the earth's carrying capacity. This takes sustainability beyond material and technical concerns, to a more expansive perception and articulation of human interdependencies in nature.

Many approaches to sustainability, particularly in policy and industry reports, focus on three pillars: economic development, social inclusion and environmental balance. This construct has a clear anthropocentric focus and does not recognise and cultivate diversity, or foreground an ecological world view. These three terms are an incomplete equation, their limitations widely recognised and articulated across a range of disciplines, belief systems, locations and cultures (Ceschin, F. & Gaziulusoy, I. 2016).

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FashionSEEDS recognises the ecological and equity context of fashion and foregrounds the role of culture as a fourth pillar for sustainability. Art and design have a distinctive and significant role to play in culture, with fashion involving each clothes-wearing person in the shaping of how we live in the world.

Environment

Economy

Society

Society

Culture
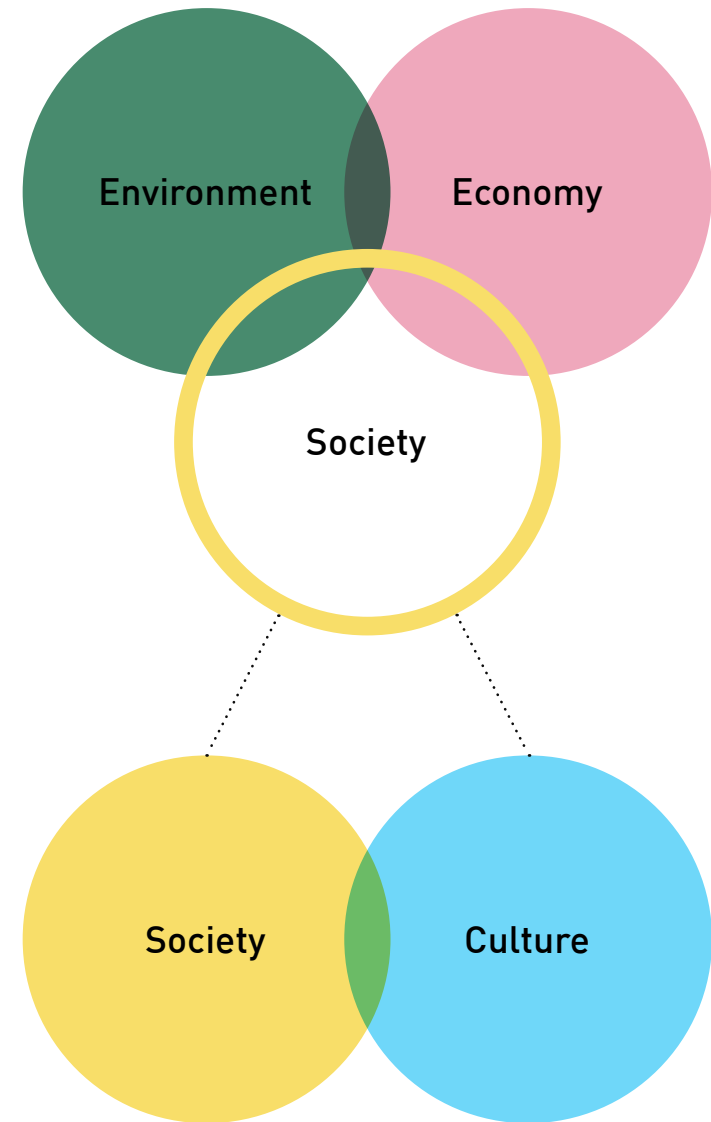
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The four pillars of sustainability

The following short descriptors of the pillars of sustainability have been applied throughout the FashionSEEDS project, including in workshop content, course, curriculum and learning design.

Economic sustainability

Economic sustainability refers to the ability of citizens to enjoy living conditions within agreed boundaries in terms of wage levels relative to costs of living and the gap between lowest and highest wages. It refers to regional and inter-regional access to investment and to a healthy relationship between productivity, employment and economic status.

Social sustainability

Social sustainability refers to the ability of a community to interact and collaborate in ways that create and exemplify social cohesion. It considers places, communities and organisations, formal and informal, and their resources, opportunities and challenges. It involves agency of diverse participants, voicing and acting with autonomy and harmony with other earth citizens.

Environmental sustainability

Environmental sustainability refers to our ability to live within biosphere limits, recognising the earth's carrying capacity. It draws on ecological principles and practices that recognise people as part of nature. It involves ways to preserve and regenerate the quality of the natural world on a long-term basis. It recognises the rights of all living beings.

Cultural sustainability

Cultural sustainability refers to tolerant systems that recognise and cultivate diversity. This foregrounds inclusion and representation to ensure that fashion is representative of and represented by diverse communities, locations and belief systems. It includes active ways to be anti-racist, to ensure gender-based equity and to preserve and safeguard First Nations cultural heritage, beliefs, practices and histories in connection with place, resources and ancestral lands.

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Chapter 2
Pedagogic Principles

The pedagogies outlined in FashionSEEDS build on the Centre for Sustainable Fashion's Pedagogic Principles and wider art and design and education for sustainability research.

These pedagogies draw on a participatory, constructivist approach to teaching and learning that recognises fashion design for sustainability as possibility creating as well as problem solving (Williams, D. 2016). Fashion making is thus understood to involve the creation of both materiality (garments worn on the body) and meaning (relationships and activities that form identity and represent values).

The following short descriptions relate to pedagogies that have been applied to workshop content and courses, curriculum and learning design throughout the FashionSEEDS development process. A signature pedagogy (Shulman, L.S. 2005) has three dimensions: surface structure, deep structure and an implicit structure. This involves pragmatic, operational elements of teaching and learning, the 'what' of teaching and learning, along with understandings and assumptions about the 'how' to put pedagogies into practice. The ability for educators to reflect on and discuss their moral beliefs relating to their values and professional attitudes forms the 'why' that is often squeezed out of staff development and course preparation time. These pedagogies are cross-referenced into the Course Designer, Design Canvas and Course Cards on the FashionSEEDS platform as applications of their relational elements.

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Futures thinking

Critical and creative thinking

Systemic thinking

Participation and participatory learning

8 Pedagogic Principles

Learning through making

Place-based learning

Interdisciplinarity

Informed decision making

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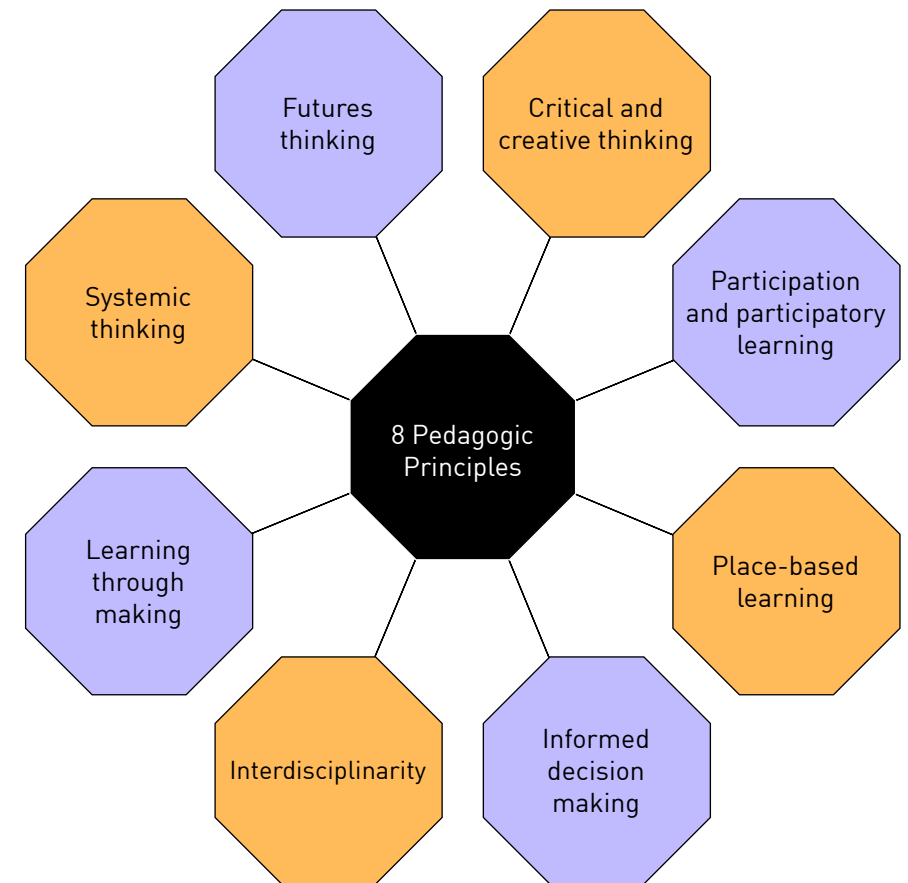
1 **Systemic thinking (ST)**

Systemic thinking encourages a holistic viewing of situations marked by complexity and supports integrative and adaptive processes of thinking and practice (Ryan & Tilbury, 2013). Engaging in practices of systemic thinking, sometimes referred to as Linking Thinking (Sterling, S. et al., 2005), involves consideration of ecological and social systems. It involves engaging learners in practical elements of mapping feedback loops to understand cause and effect of decisions relating to materials or teamwork. Systemic thinking at a deep structure level involves exploring relationships between people, places and environments. This links ecological and social agendas in a multidisciplinary context (Burns, H. 2011). The moral dimension of systemic thinking draws on tutors' and learners' belief systems and explores human interdependencies in wider nature. This can be explored through fashion's material and immaterial dimensions.

2 **Creative, critical thinking (CCT)**

As a discipline, art and design teaching and learning involve practical and cognitive skills building and practices. Curriculum briefs creatively and critically explore accepted practice through experiments at the edges of what is possible and what is of concern in cultural, material, social and aesthetic terms. Through sketchbooks, diaries, prototyping and peer reviews, learners can be invited to think critically about dominant norms, practices and power relationships, and to consider complex ecological and social issues from diverse perspectives (Burns, H. 2011). How learners see themselves and their agency can also be explored through fashion's material dimensions, where a product can facilitate new and unique ways to interact with audiences and extend the scope of the discipline itself. This is in evidence through a wide range of artists and designers exploring sustainability as a critical discourse in public, community and other spaces. Roles are often changed from traditional hierarchies to co-creators or designers as hosts, creating conditions for others to design (Williams, D. 2015). Consideration of the implicit elements of practice, such as relationship building, listening and reflection space, becomes part of the process.

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3 Participation and participatory learning (PPL)

Participatory practice goes beyond studio-based pedagogy that encourages interaction between technicians, tutors, learners and end users. Such dialogic pedagogies create a kind of exchange (Orr, S. & Shreve, A. 2017), a mutual learning process between tutor and student that enriches teaching and learning through a sharing of expertise, experience and curiosity. Whilst distinctive and valued, co-learning in the studio can be expanded to engage with wider constituents who affect and are affected by learners. Participation relates to emancipatory education, where education is a form of praxis, not a product to be consumed (Habermas, J. 1971 in Terry, P. 1997). A number of universities emphasise civic engagement, referencing the radical pedagogies of Friere (Brown, S.G, 2012), but there is a need to ensure inclusive access to learning that includes intergenerational, pluralistic perspectives and voices representing communities, cultures, economies and environments directly experiencing climate and social injustice. This requires consideration of the purpose, goals and criteria for courses and institutions. Careful consideration must be given to needs and risks of participation as well as to access to learning opportunities. Beyond practical elements (briefs, literature lists, etc.) this pedagogy can be explored through self and peer reflection relating to structural inequalities within and beyond the university itself.

4 Informed decision-making (IDM)

Informed decision-making is a signature pedagogy that recognises the place for and use of quantitative research, often developed through scientific disciplines and industry consortia. The Planetary Boundaries framework (Röckstrom et al., 2009) and Doughnut Economics (Raworth, K. 2018) are cases in point. The use of data as a guide for design involves discussion of its source, context and intended application. Some data sets are not transferable in geographic or scale terms, or have been generalised, so they may be more or less relevant to a defined context. Making sense of these to guide practical application that is context-specific includes consideration of purpose and relevance. The complexity of sustainability has led to a pull towards data to simplify understanding. In practice, this can lead to simplistic or reductionist lists of do's and don'ts which can be misleading. Linking informed decisions

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to systems thinking and participatory practice helps in looking beyond information at face value.

5	## Futures thinking (FT)

Fashion is understood as an exploration of a direction of travel, manifestations of emerging ideas of relevance in wearable forms. Trend boards are the ubiquitous tool for design teams to visualise concepts from which they create silhouettes, colour palettes and collection pieces. Futures thinking methodology, however, is less about an iterative process of change, based on what has been, and more about an imagining of what is possible, with reference to research that is interdisciplinary in nature. Future scenario planning offers practical methods for ideation, made more experimental when underpinned by teaching and learning methods that immerse learners in experiential learning to stimulate imaginative ideas. The what (scenario framework) and the how (creating conditions for exploration) enables an extending of timescales, critical in the imagining of what is not currently, but could be (Sennett, R. 2008). Futures thinking works across scales of time, distance and magnitude of change. The practices of speculative design, futures design and scenario planning all offer appropriate methodologies for fashion design for sustainability, but beyond that, futures thinking can involve improvisation through a range of techniques and mediums, from within and beyond art and design disciplines (Wilkinson, A. & Kupers, R. 2013, Dunne, A and Raby, F. 2013). In common with other practices of teaching and learning, ethical issues emerge and processes for their consideration must be put into place.

6	## Place-based learning (P-BL)

Place-based learning can be a means to contextualise design within localised social, labour, resource and infrastructure systems. It can be explored through a lens of localism, where place, resources, people and their cultures form the context for activity in geographical terms. It can also refer to digital and other communities, connected by interests, aspirations and beliefs. Place-based learning can also refer to learning that takes as its focus the relationship between learning and the social situation

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in which it occurs (Lave, J. and Wenger, E. 1991). A study that starts in a place or with a shared concern can allow learners to gain direct insights into interdependencies at human and non-human scales. As a pedagogy, it offers ways to engage learners in deep listening, direct observation and multi-sensory data capture. Place-based learning can explore sustainability as a set of practices relating to resources (natural, human, etc.) within a system. This contrasts with dominant, globalised, transient production and consumption practices of fashion, where resources are stipulated and then looked for, often without reference to abundance or scarcity, renewability and impacts. Place-based learning explores resources that are in abundance as a basis for design development. This opens up learning that may be culturally or geographically specific, enriched by students and tutors from different locations sharing insights and perspectives.

7 Interdisciplinarity (I)

Fashion, whilst a discipline in its own right, involves interdisciplinarity in its professional practice. The structure of the fashion industry and of fashion education, however, means that the distinctive approaches to art and design education, in relation to the sciences, can lead to hurdles when working together. Project-based learning, a longstanding art and design pedagogical approach (Yin, R. 2008), lends itself to the intertwining of ideas from a range of disciplines. A focus on 'the project' can create conditions and focus for a reciprocal process of feedback from actors involved, where educators can invite colleagues and students from other disciplines to consider, respond to and reconceptualise ideas in real-life contexts. The dynamic of live briefs can be stimulating for participants, as long as the 'how' is carefully considered, especially relating to disciplinary assumptions. Here, the 'how' may cross-reference participatory pedagogies, using explicit co-learning and co-operative enquiry (Heron, J. & Reason, P. 1986), teamwork and role play to surface distinctions and assumptions of participants. Interdisciplinarity is becoming increasingly evident in research and in teaching practice with art and science collaborations. By taking a hybrid approach, connecting learners from different disciplines, cultures or locations can encourage an

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understanding of multiplicity and encourage self-reflection, as well as adding new teaching and learning practices to a tutor's repertoire.

8 Learning through making (LtM)

Learning through making is a signature pedagogy in fashion and sustainability, and a foundational pedagogy in art and design. Locations and activities of making involve technical, aesthetic, ergonomic and creative skills, alongside reflexivity that connects personal, political and professional perspectives of skills and capabilities development. There is, perhaps, no greater place of connectivity between surface, deep and implicit structure than in this realm. Fashion making involves a consideration of how background, culture and values interact to shape our knowledge and perceptions and those of others (UNESCO, 2002).

The teaching and learning of technical, practical, skills-based knowledge is critical to vocational readiness, enabling practical transformation of materials, alongside contributing to disciplinary knowledge and cultural relevance of products. Material and object analysis is used in exploring historical, symbolic and other meanings, and how they change over time. Object, craft and other making-related pedagogies can contribute to identifying gaps and omissions in teaching, most notably in historical and cultural sources and reference points in curriculum and discourse. The studio has long been recognised as a space for experimentation, for unexpected outcomes to inform knowledge and understanding, and for peer-to-peer assessment. Through deep consideration of the subject matter, tutors, technicians and students can become condition creators as well as form makers (Williams, D. 2019). The creation of learning networks can also help to redistribute and decentre hierachical power structures. The ethical connection between traditions of making, communities of practice and non-western sources of knowledge can be made explicit through exploring tradition in relation to and beyond industial contexts.

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Chapter 3
The Fashion Education System

"...the unhealthiness of our world today is in direct proportion to our inability to see it as a whole."

(Senge, P. 1990, p.68)

Fashion tutors are vital and distinctive levers for change in the development of perception and understanding of fashion and its contribution to lives and livelihoods.

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Fashion education is a sub-system of larger systems with a diverse range of participants and influences. Fashion tutors are vital and distinctive levers for change in the development of perception and understanding of fashion and its contribution to lives and livelihoods. By taking a nested systems view of fashion education, the ideas and activities that we engage in as tutors are relational to larger systems of education, which are subsystems of social, economic and cultural systems in which we, our students and graduates live and work. Fashion's social, economic and cultural contributions and concerns take place within the planetary biosphere system; this defines and makes sense of all that fashion is and does. This means that when changes are made within a course or school, or across a university, and about recruitment, buildings, or procurement, they should be seen in relation to biosphere interactions.
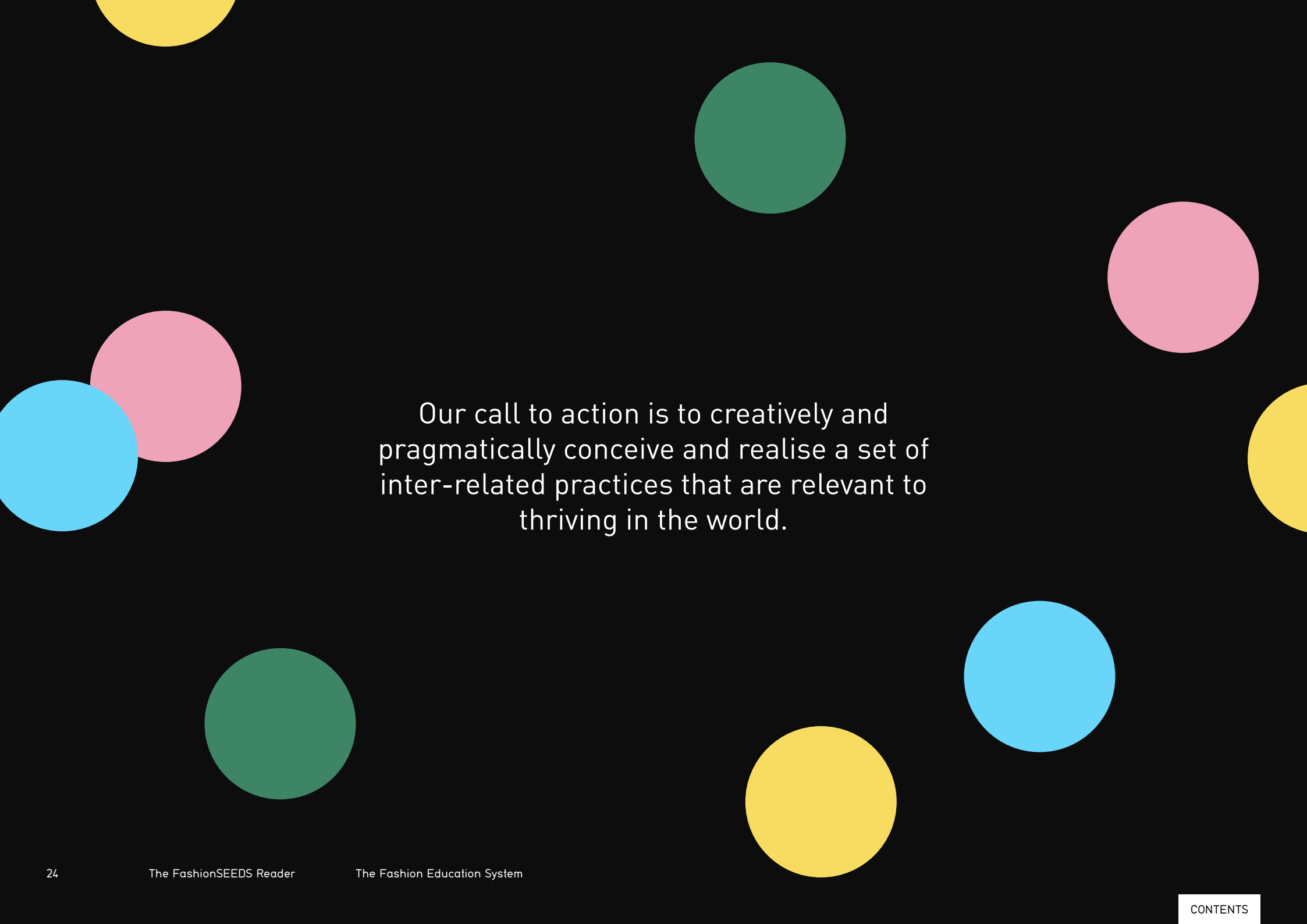
As tutors, what we change at a level of course content, in recruitment criteria and assessment models, should all be part of changes at wider levels of the fashion education system. The understanding of this interplay (fig. 1) cuts through traditional distinctions between education and the world; it recognises and welcomes the world into the classroom, exploring what living within planetary boundaries and honouring human equity look like in practical terms. It cuts through current silos in fashion industry and fashion education practice, where a systems view is seldom visualised. Consequently, education has been perpetuating the disconnect between fashion's creative and business practice, and its wider ecological context.

Our call to action is to creatively and pragmatically conceive and realise a set of inter-related practices that are relevant to thriving in the world.

The fashion education system involves a dynamic, ever-moving set of reciprocal actions and interactions contribution and consumption. We can flourish when our work is founded on care and respect for each other and life-sustaining systems. This includes using specific resources that are broadly applicable, whilst understanding that resources can never be static, as they represent living systems (Capra, F. & Luisi, P. 2016). This can be realised in fashion as life-sustaining practices that are based on recognising earth system equilibrium and social equity as the premise of economic activity.

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This approach to fashion education is based on an understanding that you can never direct a living system; you can only disturb it (Wheatley, M. 2005). In this way, as tutors, we facilitate rather than directly change, guided by a set of ethical principles, based on an understanding of reciprocity. Fashion's entrenched practices of taking over giving require us to find and connect ways to restore equilibrium in nature, including human equity. This is understood to represent our interbeing (Hanh, T N. 2017), sharing one world with all living and material elements.

Shift

Ideation

Awareness

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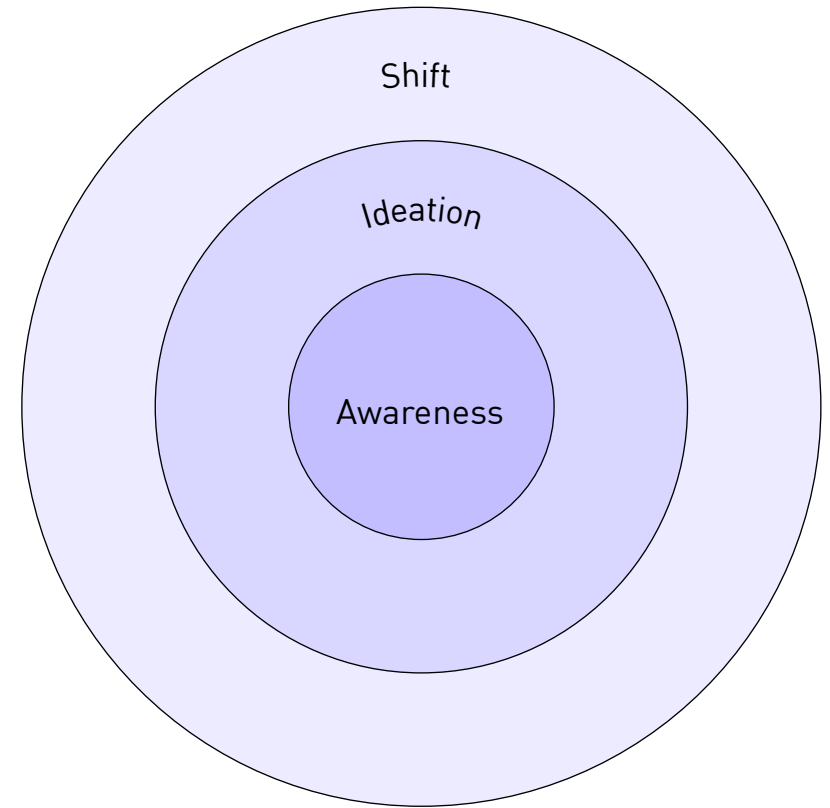
Chapter 4
Scales of Transformation

"Knowledge and learning are humanity's greatest renewable resources for responding to challenges and inventing alternatives. Yet, education does more than respond to a changing world. Education transforms the world."

Futures of Education, UNESCO (2020)

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There is broad and deep discussion taking place across disciplines and walks of life, questioning the scope and intention of design and its markers of success. New epistemological and ontological understanding of design is leading to knowledge and practice in a relatively new field of study: that of transformation design. This is recognised as knowledge that transforms how the people who create it understand themselves. By extension, this questioning of ourselves and our place in the world means that education can transform societies in which we belong. **Fashion tutors play a vital part in bridging current and evolved perceptions and understandings of the world.** This is dependent on their ability to guide students and to learn with and from them, so that they can find livelihoods in the current fashion system, whilst dramatically changing it.

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Transformation design offers concepts, theories and practices that change not only the materials and garments of fashion, but also proactively transform systems and organisations (Burns, C. et al., 2006) and people themselves. It offers ways to traverse the current into a new system, based on new markers of success.

Universities and businesses teaching and practising fashion do so in an environment of constant change. Designers have traditionally been identified as problem solvers. The challenge for educators is to develop briefs that consider design as a means for continually responding, adapting and innovating; designers becoming possibilities creators. Thus, transformation can be described as remodelling across levels from macro to micro, from garment design to systems of valuation.

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The project team has shared and exchanged their own research and resources, that of tutors from each of their universities, and data gathered from multiple locations. The model Scales of Transformation, developed and tested by the project lead (Williams, D. & Toth-Fejel, K. 2017) is a necessary and timely alternative that changes the business as usual (BAU) model of incremental change to illustrate how a paradigm shift replaces a dysfunctional system with a renewed and functioning one.

The Scales of Transformation model has been employed in the development of the FashionSEEDS resources, including the Course Designer and the FashionSEEDS cards. It allows a mapping of activity towards transformation and plots evidence against teaching and learning pedagogies and practices. It recognises transformation across three levels of change, using descriptors adapted from transformation design literature and practice.

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Scales of Transformation

Level One: Awareness	Level Two: Ideation	Level Three: Shift
Teaching about sustainability, identifying and recognising problems, caring for those affected by current practice and gathering evidence of the situation. Awareness leads to actions being taken to mitigate harm. This level is characterised by a motivation towards engagement, participation or activism, which can save lives, species and ecosystems. The value of these actions is recognised, whilst acknowledgement must be given to the fact that this change is not sufficient on its own, to live within planetary boundaries and equity in fashion. Affect often follows awareness and Affective pedagogies address this aspect of human experience as well as providing motivation for change.	Teaching for sustainability encourages ideation to create new materials, products, and services that factor in environmental, social, economic and cultural cost and value of fashion. This level is characterised by product innovation that takes place within current world views, and evidence of adaptation to changing circumstances created by human-induced inequality and climate change. Ideation for adaptation is recognised as important in the production of novel design and production methods, but must be acknowledged as an incomplete story of change that is not characterised as modelling interdependence with nature. Problem-based learning and innovation processes stimulate new thinking and a questioning of the status quo, providing reconceptualisation of processes and underlying principles of design.	Teaching as sustainability in action, played out in the practices of teaching and designing that recognise and display human ecological identity requires a shift in action as well as thought. For this to take place, change must take place at levels of consciousness of our interbeing (Hanh, T N. 2017). This shift in consciousness recognises our ethical failure in the climate, personal and societal crisis. Translating a shift in consciousness to a shift in actions and interactions as a form of collective agency involves no longer accepting the practices of an extractive society and instead practicing life-sustaining cultures, committed to the health of the world.

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The scales of transformation are offered as ways to register the necessary changes that lead to a shift in the fashion system. Points of intervention in what, how and with whom educators teach and learn can be identified in the Tutors' Toolkit. Educators from across courses, locations and fashion education system levels can explore what is feasible and relevant in their work. The ambition of the scales is to recognise the value of acting at each level within an understanding that the imperative for deep change requires activity at all of these levels.

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Photo: Ella Caton working with colourful fabrics. © Alys Tomlinson

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Adapted from Williams, D. & Stevenson, N. (2012) unpublished.

System Interventions	Level One: Awareness Change within and adjustments to current system Learnt Responses Within current courses and university structure	Level Two: Ideation Significant change in how we view and do things Critical Responses Evolved courses, revised structures	Level Three: Shift Accepted, shifted perception of the world that transcends business as usual (BAU) Transformation Reconceptualisation of why, what, how, and with whom we teach and learn
Futures thinking	An incrementally better, improved future	A different future from current path	A future as yet unimagined or predicted
Critical and creative thinking	Assessing current system and coming up with improvements	Developing alternative systems that reconsider power structures and change them	Creating a new system to overwrite BAU; alternative interactions take place
Participation and participatory learning	Bringing in new stakeholders to existing system	New participants and stakeholders help create new systems	Work is shared, owned and created in a totally different way
Systemic thinking	Whole systems considered rather than one aspect	Systems are overhauled	New systems replace BAU
Interdisciplinarity	Cross-discipline partnerships and knowledge used to improve the system	New partnerships and interdisciplinary knowledge begin to change systems	New partnerships and disciplines replace BAU and change the system
Informed decision-making	Knowledge/data gathered to identify and act at identified points	Holistic knowledge and data used to permanently change the system	New perspectives generate new knowledge and data
Place-based learning	Location of activity considered, adjustments relevant to place and people	Location is integral to activities with a feedback loop between place and activity	Location-activity relationships are transformed; relationships build resilience in both
Learning through making	Material, shape and form are considered along with related histories	Origins of material craft and use information	Meaning and making are intertwined in an ecological context of matter and form

Chapter 5
Fashion Design
for Sustainability

"The shape of the global future rests with the reflexivity of human consciousness: the capacity to think critically about why we think what we do; and then to think and act differently."

(Raskin, P. 2008.)

Fashion design for sustainability involves conceiving, realising and communicating multiple ways in which fashion activities can create prosperity at micro and macro scales whilst consuming less of the earth's finite resources.

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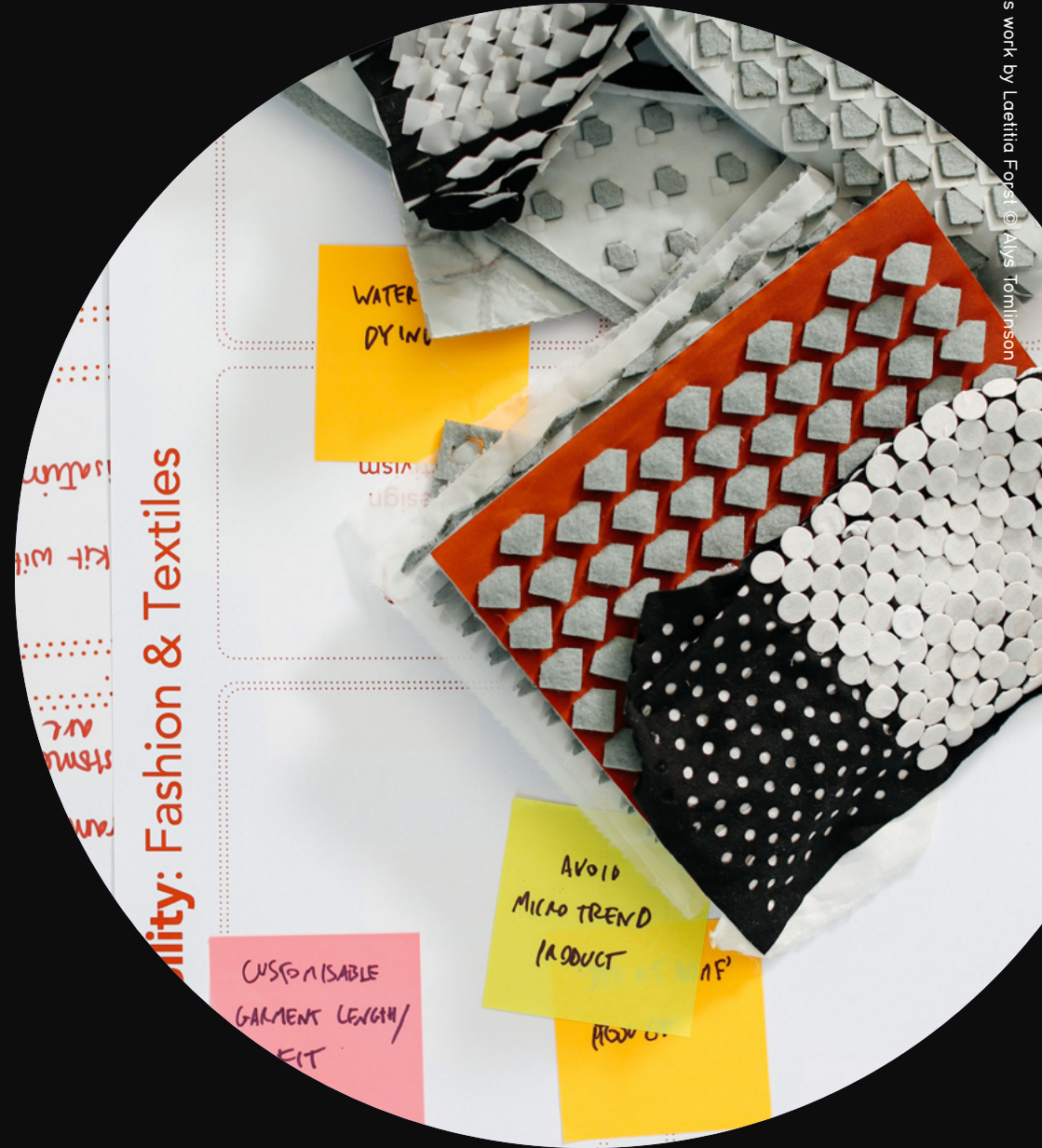
Fashion design for sustainability (FDfS) as a field of study draws on and intersects the burgeoning field of design for sustainability (DfS) and the more established, yet still young, field of fashion research. Fashion as an academic study is taught in universities across the world. This study predominantly relates to fashion as a huge and important global industry, its economic value equivalent to the world's seventh largest economy (McKinsey, 2016), encompassing micro to multi-national companies, social enterprises, co-operatives, not for profits, and stock exchange listed businesses. It is essential that a study of fashion explores and recognises change-making across these levels and locations, with sensitivity to differing risks involved for those within a range of situations in the current fashion education and industry systems.

Fashion design for sustainability involves conceiving, realising and communicating multiple ways in which fashion activities can create prosperity at micro and macro scales whilst consuming less of the earth's finite resources. The globally widening gap between wealth and poverty, increasing polarisation between political, religious and other belief systems, and increasing intolerances increase the necessity for commitment to social, cultural and environmental sustainability.

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Fashion design for sustainability necessarily considers power and agency, motivation and engagement, knowledge and understanding, between people at individual and community levels. This field of study is informed by a range of influential texts, recognised academic and industry practice, and by tacit knowledge. However, it is important for us to point out that fashion, design, education and sustainability involve sources of knowledge that seldom start with theoretical concepts and should not be limited by them. We should start from the fact that *we can know more than we can tell* (Polanyi, M. 1967). Michael Polanyi termed this pre-logical phase of knowing as 'tacit knowledge', to describe conceptual and sensory information and images that can be brought to bear to communicate understanding. The richness of such knowledge is often passed from educator to student and involves practical and ethical dimensions. It also involves the ways that those with lived understanding can recognise environmental degradation before science can document it, or how a craft tradition realises learning through making.

The potential for mutual learning can only be realised when models and pedagogies of learning and the roles of tutor and learner are explored beyond that of many current university practices. In the case of fashion design for sustainability, thorny questions can emerge relating to the purpose and role of designers and tutors as complicit in practices not aligned to their personal values.

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Chapter 6
Capabilities, Competences and Skills

"Education and knowledge resources are more available today than ever before. However, humanity's two main conflicts – co-existence with nature and with each other – remain unresolved."

(Escrigas, C. 2016.)

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As tutors, we are motivated by a set of ambitions and intentions relating to the teaching and learning that we undertake. A sense of achievement goes well beyond the final marks achieved by students and the feedback given to the graduate. The purpose of education is multi-faceted; however, a construct, developed from Sterling, S. (2010), maps vocational purpose, where grades and media, industry and public recognition are widely used as markers of success; the development of disciplinary knowledge, through published work and the tacit knowledge (Polanyi, M. 1967) exchanged between tutor and student, with socialisation; nurturing a development of self in the world. However, unless a fourth, pivotal, transformational purpose of education influences the other three areas, education may do little more than prop up the status quo. The transformational elements of education involves the development of capabilities that are needed to resolve these life-dependent conflicts.

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How can we know if we have done a good job?

A transformation of fashion education (Williams, D. 2016) involves nurturing capabilities, skills and competencies that can make a positive contribution to society, economy, culture and environment. There is a substantial body of discipline-specific and cross-disciplinary research relating to graduate capabilities, skills and competences, in preparing for lives and livelihoods beyond study. Many universities undertake audits of where and how graduates apply their learning, and attributes are recognised according to sectors, industries, governments, communities and education systems. The European Qualification Framework (EQF) (EUCEN, 2008) classifies knowledge as the outcome of the assimilation of information through learning; competences as the proven ability to use knowledge, attitudes and personal development; and capabilities and skills as the ability to apply knowledge and use know-how to complete tasks and solve problems. In taking a transformational approach to education, this layering of definitions can be inverted to foreground and expand a capabilities approach (Sen, A. 1999) where agency as well as the ability to create, to solve and to dissolve complex problems goes beyond the application of an assimilation of information through learning. Fashion education, with its imaginative and technical elements, aligns well to Sen's work that offers a philosophical and practical approach to sustainability in socio-economic terms. By exploring the 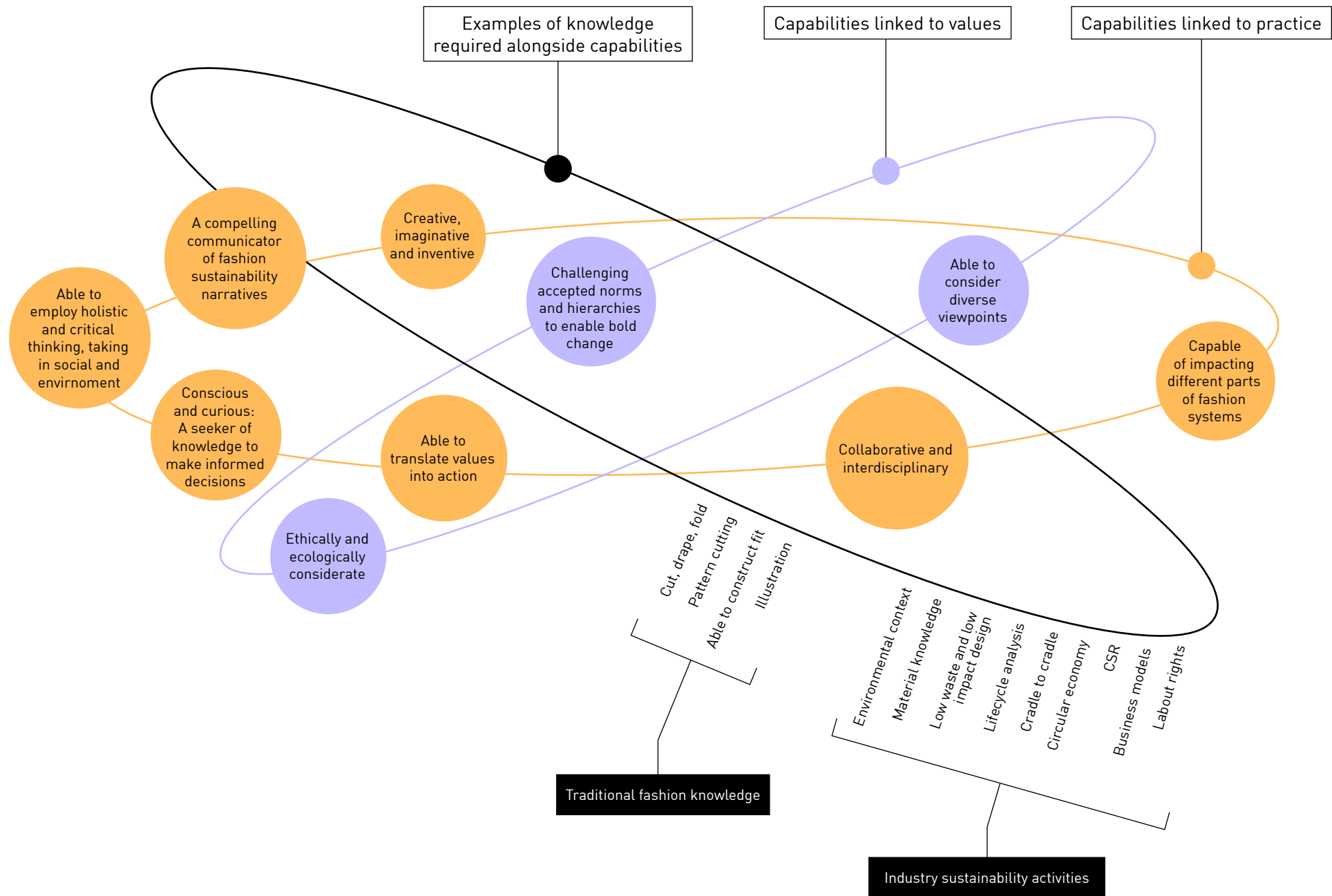relational aspects of capabilities to the four pillars of sustainability, tutors can map and evaluate learning experiences according to learners' ability to take part in education, as well as to produce outcomes. Skills become recognised as the interpretation of knowledge and practised ability to act and interact with resources (people, materials, etc.) enabled through capabilities. Acquired skills must be considered as an ongoing process, adaptable and evolving as part of a transformation of self and the fashion sector, and undertaken in and beyond higher education, as part of life-long learning. It is important to be able to identify and assess skills and their application, through conceptual and applied projects and through in-work training. Competences then encompass an aptitude for learning and its application, drawing on capabilities: all in relation to an ability to interact with wider social, cultural, economic and ecological systems. This all applies to tutors as learners, as well as to student learners, where tutors exchange ideas and their application with graduates, each contributing to systemic change.

A capabilities approach to fashion design recognises the interdependencies between self, society and economy in terms of their direct relevance to the well-being and freedom of people, their indirect role through influencing social change and their indirect role through influencing economic production. (Sen, A. 1999.)

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This socio-economic approach, whilst not explicitly referencing the biosphere level of the fashion education system, can be cross-referenced with a discourse on capabilities in education for sustainability, to see it as taking place within an ecological paradigm. [Redman, C. and Wiek, A. 2012) describe capabilities as 'a functionally linked complex of knowledge, skills, and attitudes that enable successful task performance and problem solving'; applied to competences in sustainability, these are 'complexes of knowledge, skills, and attitudes that enable successful task performance and problem solving with respect to real-world sustainability problems, challenges, and opportunities' (Wiek et al. 2011b: 204). Sen does not subscribe to listing capabilities, seeing them as emergent, relational and in flux. Tutors have to navigate a path between attendant learning, which is responsive, social and experienced and structured learning, which is formalized, validated and written down. Connecting these approaches can help tutors in defining and assessing their own learning experiences, as well as helping students in deepening and applying their learning.

The relational aspects of capabilities, competences and skills are part of an ever-evolving process of learning that takes place in formal and informal settings across our lives. Teaching and learning in the context of BA and MA courses in fashion design for sustainability is part of a systemic phenomenon that is inherently relational, emergent and recursive, involving multiple logical levels. Learning becomes an effective act of change toward sustainability *when it is reflective, experimental, experiential, investigative, participatory, iterative, real-world and action-oriented* (Sterling, S. 2009). A Delphi study was carried out prior to the project commencement, to establish a construct for fashion education and sustainability. This was undertaken by members of the project team with tutors from wide-ranging locations, and offers an example of a capabilities approach to fashion design for sustainability. This and other reference points used in assessing learning can be triangulated with the scales of transformation.

Capabilities: Fashion Design For Sustainability
Williams, Toth-Fejel and Stevenson (2016.)

Examples of knowledge required alongside capabilities

Capabilities linked to values

Capabilities linked to practice

A compelling communicator of fashion sustainability narratives

Creative, imaginative and inventive

Challenging accepted norms and hierarchies to enable bold change

Able to consider diverse viewpoints

Able to employ holistic and critical thinking, taking in social and envirnoment

Capable of impacting different parts of fashion systems

Conscious and curious: A seeker of knowledge to make informed decisions

Able to translate values into action

Collaborative and interdisciplinary

Ethically and ecologically considerate

Cut, drape, fold
Pattern cutting
Able to construct fit
Illustration

Environmental context
Material knowledge
Low waste and low impact design
Lifecycle analysis
Cradle to cradle
Circular economy
CSR
Business models
Labour rights

Traditional fashion knowledge

Industry sustainability activities

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Chapter 7
The Fashion Tutor as Sustainable Self

"Over the time... my most important learning about building a transformed fashion system is to recognise that a good bit of the transformation in question happens in our own bodies. It's not all about fabric and factories."

Professor Kate Fletcher, in CSF is Ten. (2018)

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Knowing that we don't know

We each know something about what needs to change in the fashion curriculum in the context of sustainability. Many of us have evidence of what we have achieved as researchers and tutors in fashion, design and sustainability.

However, this is not enough to realise the potential that tutors hold in transforming the fashion education system. A clarion call made by tutors involved in FashionSEEDS is a plea for space for reflection, deliberation and sharing, to be supported by and to be supportive to other tutors. They seek a chance to voice and share things that worry and perturb them. Discussion of matters of concern is a means for tutors to be able to create change within and beyond themselves. For this reason, we created a simple-to-use outline for tutors to engage in supportive reflection; to be able to consider sustainability from a personal as well as professional perspective, and to do so with others. This heuristic draws on our own practice along with reference to sustainability scholarship and to practices used in coaching. The elements outlined in the Fashion Tutor as Sustainable Self seek to engage tutors in practices of collaboration, co-learning and self-reflection. They do not replace other support practices and processes and tutors are encouraged to engage in, signpost or otherwise encourage the use of a range of ways to support and care for self and others.

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Photo: Designskolen Kolding

Photo: Eesti Kunstiakadeemia

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FashionSEEDS was conceived due to identified gaps in knowledge and learning opportunities for those teaching and designing a curriculum in fashion education for sustainability. Through the lived experience of the project team members and that of colleagues and tutors in educator networks, it became apparent that there was an appetite for semi-structured, open, adaptable, flexible means to recognise and give time for a co-learning process of reflection and action.

The opportunity provided by the project enabled each member of the team to reflect on and share experience with other team members through a longitudinal reflective process. At the same time as learning with and from each other's practice, we have learnt about the social, political, cultural, economic and environmental context of the four universities in the study. Our co-learning methods have been iterative, open and 'light touch', using verbal and text-based reflections, captured and recorded for use in the project.
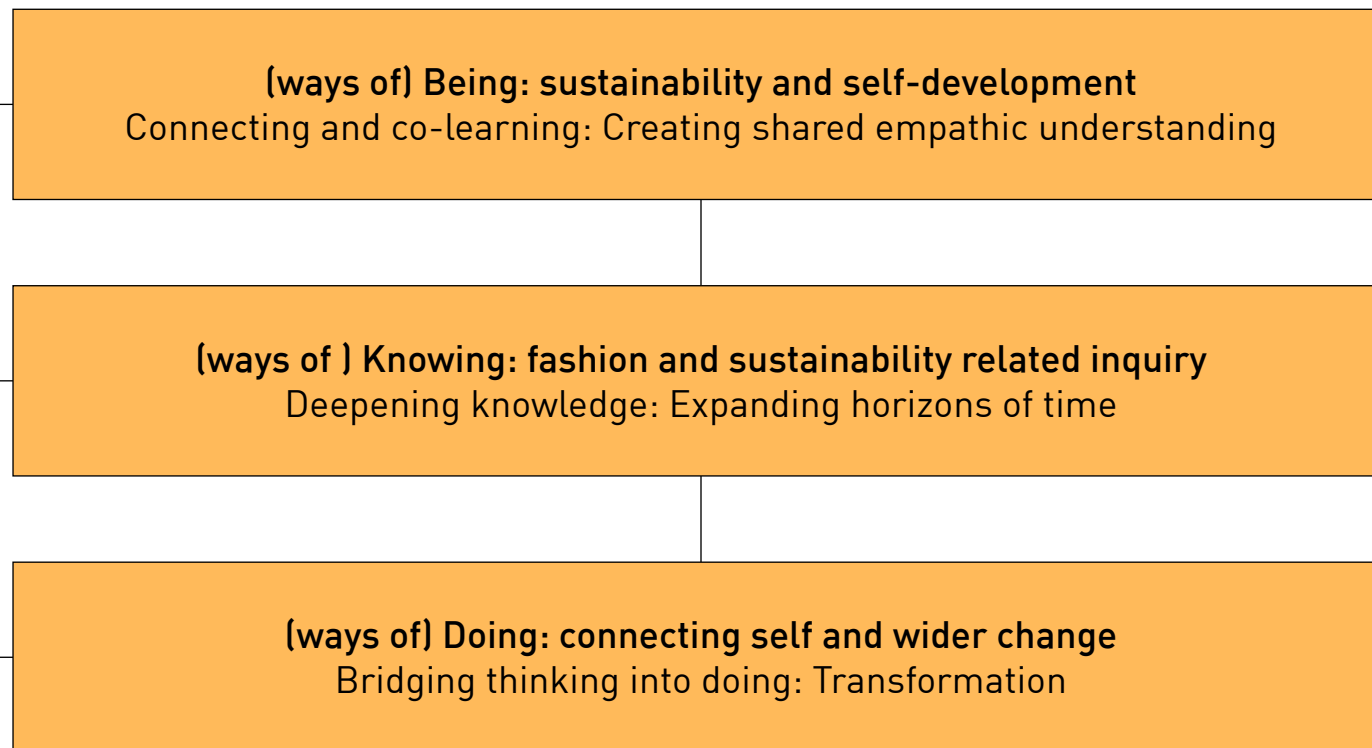
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By bringing together other colleagues from each of the universities in workshop sessions, a wider group of tutors undertook this listening, reflecting and taking action process of change-making within the curriculum and within their own thinking and practice. A process of co-learning is not easy, especially when those involved are time-poor and in different situations. Tutor as Sustainable Self is a methodology that has been designed to support a participatory research process towards learning and change within tutors as learners. If tutors are to get to the heart of what fashion, and wider art and design education, can offer to society, they need to question not only how design supports and enables destructive practices, but the values and intentions behind teaching, where success is marked by the ability of graduates to take part in destructive systems. This is difficult for tutors to wrestle with and to identify where they have agency in what they want to change.
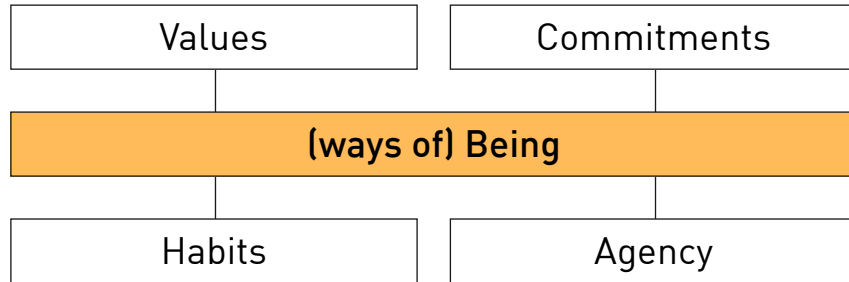
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Three Ways of the Sustainable Self

The fashion tutor as sustainable self is made up of three elements that can be engaged with separately or in tandem. They are holistic in approach and participatory in design, and link to themes emerging from the projects benchmarking report:

(ways of) Being: sustainability and self-development
Connecting and co-learning: Creating shared empathic understanding

(ways of) Knowing: fashion and sustainability related inquiry
Deepening knowledge: Expanding horizons of time

(ways of) Doing: connecting self and wider change
Bridging thinking into doing: Transformation

(ways of) Being

Values	Commitments

(ways of) Being

| Habits	Agency

A mutual learning process where two people come together to develop their own sense-making and sustainability development via discussion, decision-making and self-care.

Through project activities, it soon became evident that tutors respond positively to opportunities to share experiences with each other, and that change happens more quickly when they work together. This might seem obvious to tutors reading this publication; however, there has been a lack of opportunity for tutors to engage in peer-to-peer sharing of teaching practices in fashion design for sustainability. A 'ways of being framework' offers a shared learning experience, in a diary format, for two people to engage in listening, reflecting and taking action that aims to help to sustain them, develop their sustainability thinking and support them as they teach fashion design for sustainability.

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(ways of) Knowing

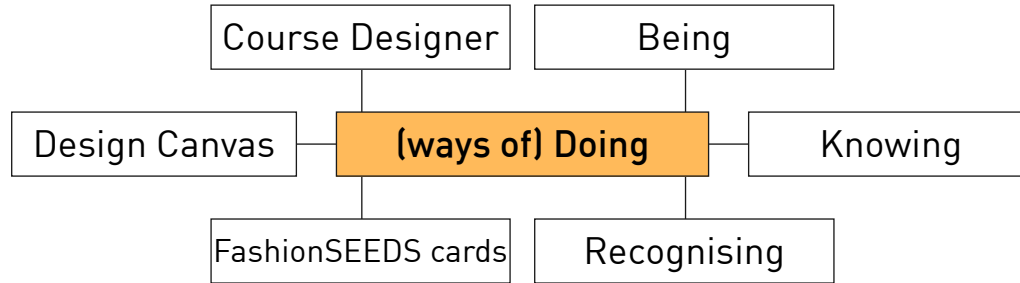| Practical	Experiential
(ways of) Knowing	
Propositional	Presentational
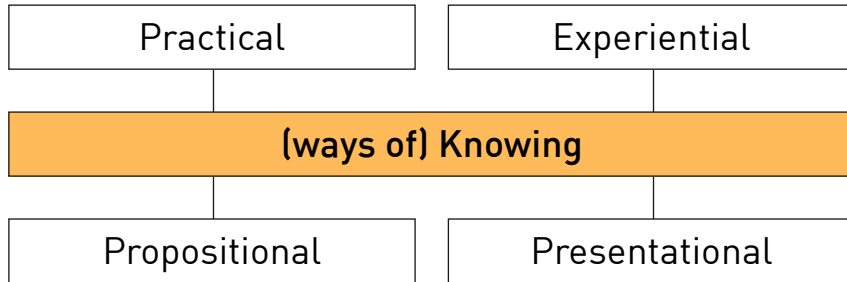
A co-learning process, based on a co-operative enquiry methodology, where a small group of tutors explore an area of shared enquiry through listening, reflecting and taking action.

When a tutor seeks to expand their understanding of fashion and sustainability, they are often faced with a need to apply for funding, to undertake research, 'buy out' some of their teaching hours and 'buy in' time for collaborators. This can be time-consuming; funding is often hard to come by and huge numbers of people apply for a handful of grants. An alternative can be to undertake enquiry in time that you can make available within your role. This can be challenging, as the role of a tutor beyond direct teaching hours is often taken up by tasks and duties relating to student and institutional needs, including pastoral care, recruitment, assessment and course organisation. The 'ways of knowing' framework draws on a co-operative inquiry methodology, tried out in the project by partners and participating tutors. It references By the Fire (Parker, L and Harrison, L) and the Kaos Pilot Learning Design programme. The practice of co-operative inquiry is a way of working with people who have similar concerns and interests to yourself in order to understand the world and develop new and creative ways of looking at things and to learn how to take action to change things and find ways to do things better. (Heron and Reason, 2001)

This practice is well suited to sustainability exploration, as it is participatory and expands research beyond theoretical ideas that are seldom tested on people in specific conditions. Instead, it offers a means to help tutors to explore and identify ways to act to change things in their lives and work.

(ways of) Doing

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┌─────────────────┐    ┌─────────────────┐
│ Course Designer │    │      Being      │
└────────┬────────┘    └────────┬────────┘
         │                      │
┌────────────────┐  ┌─────────────────────┐  ┌─────────────┐
│ Design Canvas  │──│   (ways of) Doing   │──│   Knowing   │
└────────────────┘  └──────────┬──────────┘  └─────────────┘
         ┌────────────────┐    │    ┌─────────────────┐
         │FashionSEEDS cards│  │    │   Recognising   │
         └──────────────────┘       └─────────────────┘
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The FashionSEEDS platform is designed for individuals and groups to use in a dual process of reflection and action within themselves and with learners, adapting, deconstructing, reconstructing, testing and applying ideas based on the contents on the site. The navigation of the platform is designed to be approached in multiple ways.

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End Note

Evidence in the FashionSEEDS benchmarking report indicates that almost all tutors in the study are tuned in to and acting in relation to the environmental and social crisis affecting and affected by fashion. They have high or very high levels of interest in deepening their knowledge and practice in teaching fashion design for sustainability. Most employers are seeking sustainability knowledge and its application from designers, and many are offering in-work sustainability skills development. However, university level teaching and in-work training are often confined to awareness raising and symptoms-focused education, based on current industry practice. A deeper understanding of ecological and ethical practice is required to create a transformed fashion education experience. There are gaps and inconsistencies in what and how fashion and sustainability is taught, and what graduate sustainability skills and competencies are recognised. There is a paucity of support for tutors in terms of their own practice, and information about fashion and sustainability is not easily navigable and of inconsistent quality. There has been little evidence of sustainability-related peer-to-peer tutor learning and sharing of best practice.

There is a need to shift from evidence of sustainability in the curriculum to a modelling of sustainability across higher education institutions. Consideration of how and with whom educators learn and teach is critical in this transformation. FashionSEEDS seeks to contribute to an emboldening of the purpose of fashion education, through recognition of and resources for fashion tutors, in developing the curriculum, themselves, and the learners with whom they interact.

The scope of the research that informs The Reader is limited due to English being the spoken language of the project, the bounded identity of the core team (members of four European universities) and the diversity of the participants (respondents to the project). The partners have actively sought input and feedback from a broad range of people, across geographic locations, gender, race and socio-economic identities. The research was gathered through interviews, questionnaires, workshop participation and project meetings.

We would like to extend thanks to all participants from the 73 universities who have taken part in the project, to the project Advisory Board, and to critical friends in our universities who have shared insights and knowledge that have enabled us to create The FashionSEEDS Reader.

CONTENTS

Bibliography

Brown, S.G. (2012). *The Radical Pedagogies of Socrates and Freire: Ancient Rhetoric/ Radical Praxis*. New York: Routledge.

Burns, H. (2011). Teaching for Transformation: (Re)Designing Sustainability Courses Based on Ecological Principles. *Journal of Sustainability Education, 2*.

Burns, C., Cottam, H., Vanstone, C. and Winhall, J. (2006). Transformation Design, *Design Council, Red Paper 2*, [online]. Available at: www.designcouncil.org.uk/resources/report/red-paper-02-transformation-design [Accessed 1 Feb. 2020].

Capra, F. and Luisi, P. (2016). *The systems view of life: A unifying vision*. Cambridge: Cambridge University Press.

Ceschin, F. and Gaziulusoy, I. (2016). Evolution of design for sustainability: From product design to design for system innovations and transitions. *Design Studies*, 47, pp. 118-163.

Dunne, A. and Raby, F. (2013). *Speculative Everything: Design, Fiction and Social Dreaming*. London: MIT Press.

Escrigas, C. (2016). *A Higher Calling for Higher Education*. [pdf] The Great Transition Initiative. Available at: https://greattransition.org/images/GTI_publications/A-Higher-Calling-for-Higher-Education.pdf [Accessed 19 Jun. 2021].

European Parliament Council. (2008). *European Qualification Framework for lifelong learning*. [pdf] Official Journal of the European Union. Available at: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:111:0001:0007:EN:PDF [Accessed 19 Jul. 2020].

Hanh, T.N. (2017). *The Art of Living*. London: Rider.

Heron, J. and Reason, P. (1986). Research with people. *Person-centered Review*, 4(1), pp. 456-76.

Heron, J. and Reason, P. (2001). The Practice of Co-operative Inquiry: Research with rather than on people. In H. Bradbury and P. Reason, ed., *Handbook of Action Research: Participative Inquiry and Practice*. London: Sage.

Kaos Pilot, (2021). *Kaos Pilot*. [online] Available at: https://www.kaospilot.dk/ [Accessed 26 Jul. 2021].

Lave, J., and Wenger, E. (1991). *Situated learning: Legitemate peripheral participation*. Cambridge: Cambridge University Press.

McKinsey & Company (2016). *The State of Fashion 2017*. [pdf] Available at: https://www.mckinsey.com/~/media/mckinsey/industries/retail/our%20insights/the%20state%20of%20fashion%202017/the-state-of-fashion-mck-bof-2017-report.pdf [Accessed 26 Jul. 2021].

Orr, D. (2004). *Earth in Mind*. Washington, D.C.: Island Press.

Orr, S. and Shreeve, A. (2017). *Art and Design Pedagogy in Higher Education: Knowledge, Values and Ambiguity in the Creative Curriculum*. London: Routledge.

Parker, L. and Harrison, L. (2019). *By the Fire*. [online] Available at: www.by-the-fire.co.uk [accessed 1 May .2019].

Polanyi, M. (1967). *The Tacit Knowledge Dimension*. London: Routledge & Kegan Paul.

Raskin, P. (2008). World lines: a framework for exploring global pathways. *Ecological Economics*, (65), pp. 461-470.

Raworth, K. (2018). *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*. London: Random House Business.

Redman, C.L. and Wiek, A. (2012). A Sustainability as a Transformation in Education. In: L. F. Johnston, ed., *Higher Education for Sustainability*,1st ed. New York: Routledge Taylor & Francis Group, pp. 214-223.

Rockström, J. et al. (2009). Planetary Boundaries: Exploring the safe operating space for humanity. *Ecology and Society*, [online] Volume 14(2), p. 32. Available at: www.ecologyandsociety.org/vol14/iss2/art32 [Accessed: 10 Mar. 2020].

Ryan, A. and Tilbury, D. (2013). Uncharted waters: voyages for Education for Sustainable Development in the higher education curriculum. *Curriculum Journal*, 24(2).

Sen, A. (1999). *Development for Freedom*. New York: Oxford University Press.

Senge, P. (1990). *The Fifth Discipline, The Art and Practice of the Learning Organisation*. London: Random House Business Books.

Sennett, R. (2008). *The Craftsman*. New Haven: Yale University Press.

Shulman, L.S. (2005). Signature Pedagogies in the Professions. *Daedalus*, 134(3), pp. 52-59.

Simon, H.A. (1969). *The Sciences of the Artificial*. Cambridge, MA: MIT Press.

Sterling, S. (2009). Ecological Intelligence: viewing the world relationally. In A. Stibbe, ed., *The Handbook of Sustainability Literacy: Skills for a Changing World*, Dartington: Green Books Ltd., pp. 77-83.

Sterling, S. (2010). Learning for resilience, or the resilient learner? Towards a necessary reconciliation in a paradigm of sustainable education. *Environmental Education Research*, [online] Volume 16(5), pp. 511–528. Available at: www.researchgate.net/publication/254251248_Learning_for_resilience_or_the_resilient_learner_Towards_a_necessary_reconciliation_in_a_paradigm_of_sustainable_education [Accessed 1 Nov. 2020].

Sterling, S. (2003). *Whole Systems Thinking as a basis for paradigm change in education: explorations in the context of sustainability*. [pdf] PhD. University of Bath. Available at: www.bath.ac.uk/cree/sterling/sterlingthesis.pdf [Accessed 21 Oct. 2019].

Sterling, S., Maiteny, P., Irving, D. and Salter, J. (2005). *Linking Thinking*. [pdf] WWF Scotland. Available at: http://assets.wwf.org.uk/downloads/linkingthinking.pdf [Accessed 1 Nov. 2020].

Terry, P.R. (1997). Habermas and education: knowledge, communication, discourse. *Curriculum Studies*, 5(3), pp. 269-279.

United Nations Educational, Scientific and Cultural Organisation, (2020). *Futures of Education. Visioning and Framing the Futures of Education*. [pdf] Paris: UNESCO. Avaialbe at: https://unesdoc.unesco.org/ark:/48223/pf0000373208/PDF/373208eng.pdf.multi%20 [Accessed 19 Jun. 2021].

United Nations Educational, Scientific and Cultural Organisation, (2001). *UNESCO Universal Declaration on Cultural Diversity*. [online] Available at: http://portal.unesco.org/en/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html [Accessed 1 Nov. 2020].

United Nations, (1948). *Universal Declaration of Human Rights*. [online] Available at: https://www.un.org/en/about-us/universal-declaration-of-human-rights [Accessed 19 Nov. 2020].

Wheatley, M.J. (2005). *Finding Our Way: Leadership for an Uncertain Time*. San Francisco: Berrett-Koehler Publishers.

Wiek, A. et al. (2011b). Key Competencies in Sustainability – A Reference Framework for Academic Program Development. *Sustainability Science*, 6(2), p. 204.

Wilkinson, A. and Kupers, R. (2013). Living in the Futures. *Harvard Business Review* [online] Volume 5. Available at: https://hbr.org/2013/05/living-in-the-futures [Accessed 1 Jul. 2020].

Williams, D. (2015). Fashion Design and Sustainability. In: R.S. Blackburn, ed., *Sustainable Apparel: Production, Processing and Recycling*, 1st ed. Cambridge: Woodhead Publishing, pp. 163-182.

Williams, D. (2019). Fashion Design for Sustainability: A framework for participatory practice. In: *LeNS World Distributed Conference*. Milan, p. 6. Available at: https://ualresearchonline.arts.ac.uk/id/eprint/14350/1/LeNSin_full_paper._dilys%20williams.pdf [Accessed 19 Jul. 2021].

Williams, D. (2016). Transition to Transformation in Fashion Education for Sustainability. In: W.L. Filho and L. Brandli, ed., *Engaging Stakeholders in Education for Sustainable Development at University Level*, Cham: Springer International Publishing AG, pp. 217-232.

Williams, D. and Fitzpatrick, A. (2018). *Ten years of Centre for Sustainable Fashion*. London: University of the Arts London. Avaialbe at: https://www.sustainable-fashion.com/publications/ten-years-of-centre-for-sustainable-fashion-(csf) [Accessed 19 Jun. 2021].

Williams, D. and Toth-Fejel, K. (2017). The Will and the Skill in Education for Sustainability. In: W.L. Filho, U.M. Azeiteiro, F. Alves and P. Molthan-Hill, ed., *Handbook of Theory and Practice of Sustainable Development in Higher Education*, 1st ed. Vol 4. Cham: Springer International Publishing AG, pp. 79-94.

Yin, R. (2008). *Case Study Research: Design and Methods*. 4th ed. Beverly Hills: Sage Publications.

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