Fashion Design for Sustainability: A framework for participatory practice

Professor Dilys Williams
Centre for Sustainable Fashion, University of the Arts London
d.williams@fashion.arts.ac.uk

ABSTRACT

To foster an understanding of our interdependence as humans in the natural world, new ways of knowing, doing, being and learning to live together[1] must be formed. Such a dramatic shift from dominant worldviews of control over nature towards co-existence involves critical reflection of intentions, beliefs, habits and practices at personal, societal and species levels[2]. Fashion Design for Sustainability (FDfS) explores living well together in nature through fashion's social, industrial, cultural, economic and educational dimensions from micro to macro scales. This research explores FDfS with participants across a spectrum of engagement, circumstances and locations to invert the current fashion system from one that exacerbates relationship inequalities, to one of interdependence. This paper describes a framing for fashion in such a context, developed to be in constant beta, maintaining its underlying

---

[1] United Nations Economic and Social Council. (2011). Learning for the future: Competences in education for sustainable development. Retrieved from https://www.unece.org
[2] Walker, S. (2011). The spirit of design: Objects, environment and meaning. London: Earthscan.

ambition,   whilst   informed   by   participants.

Keywords: Fashion Design for Sustainability, participatory frameworks, ecological context

1. INTRODUCTION

This paper articulates critical reflections on an iterative, explorative process of designing and delivering a framework for FDfS in educational and business contexts. This framework has been created from an ecological and equity viewpoint and draws on an approach to fashion education and industry practice that is socially, culturally, economically and thus environmentally transformative. It terms design and designing as a set of actions and interactions undertaken by those engaged in fashion's business, social, personal and educational practices. It offers a substantially different approach from many fashion and sustainability endeavors (with notable exceptions) predicated on product, material and business growth. Through reflection on applications of this model, the paper identities challenges and opportunities of working in this way. This includes connecting and relating pragmatic product-based outcomes and the sometimes less visible values-based explorations and decision-making processes involved. It offers an emergent framework for diverse participants to participate in critically needed, radical change to the fashion system.

2. BACKGROUND

Designing for sustainability connects the values, visions, practices and capabilities of those who wear, care for, conceive, make, buy, sell or otherwise engage in the elements that make up attire. Worn on the body, representing identity, time, culture and much more, fashion is a highly visible and distinctive barometer of our relationship with nature and each other[3]. The fashion industry has a heightened in sustaining its substantial $2.4 trillion a year heartbeat[4] due to environmental and social concerns[5]. This paper, however, draws on a definition of prosperity that broadens out fashion's ambition for sustainability to encompass 'prosperity as the capabilities that people have to flourish within the resource constraints of a finite planet'[6]. This shifts the focus of sustainability from products that create profit with minimum harm, to human capabilities to live well, together in nature, recognizing its boundaries. The current fashion system is already recognized as no longer tenable,[7] so a recalibration of what it means for individuals and business organizations to exist within society, and society exists within the environment[8] takes sustainability from the margins towards a central tenet of fashion.

There is a clear tension between those seeking to sustain the current fashion system, with the economy at the centre of nested systems and those who explore fashion from an ecological and equity paradigm. However, in order for us to learn to live well together, we must all engage in transformation of our current anthropocentric behaviours. This framework embraces this tension, from ten years of research, education and business practice. This paper articulates the framework's dimensions and development, highlighting reflections and learning from its recent application as part of a free to access, online course: Luxury Fashion in a Changing World (FutureLearn)[9]. This has engaged more than 20,000 learners from 151 countries to date with learners from undergraduate to high profile fashion maisons.

3. A DESIGN FRAMEWORK AS NAVIGATION

FDfS acknowledges our biophysical limits and human equality at the core of thinking and practice. It recognizes interdependencies between people and nature's wider resources and activities in a dynamic, living system[10]. It embraces an exploration and understanding of design as personal and professional actions[11] and interactions of nature and labour. Thus, fashion pieces 'exist partly in relation to climate and partly in relation to social world and mediate

[3] Williams, D. (2018). 1990 – Present. In Ehrman, E. (Ed.) Fashioned from Nature. London: V&A Publishing. (pp.149-173).
[4] The Business of Fashion & Mc Kinsey & Company. (2016). The state of fashion 2017.
[5] Global Fashion Agenda & Boston Consulting Group. (2017) Pulse of the fashion industry.
[6] https://www.cusp.ac.uk
[7] House of Commons Environmental Audit Commission (EAC). (2018). Fixing fashion.
[8] Jordan, K., & Kristjánsson, K. (2017). Sustainability, virtue ethics, and the virtue of harmony with nature. Environmental Education Research, 23(9), 1205-1229. doi:10.1080/13504622.2016.1157681
[9] FutureLearn is an online learning platform www.futurelearn.com
[10] Capra, F., & Luisi, P. (2016). The systems view of life: A unifying vision. Cambridge: Cambridge University Press.
[11] Cross, N. (2006). Designerly ways of knowing. London: Springer.

between both of these things'[12]. Fashion pieces configure our relations, so designing is an agent of that configuration. We need to develop sustainability led selves *and* sustainability led products, services and systems.

Designing 'can cast ideas about who we are and how we should behave into permanent and tangible forms'.[13] These forms offer displays of the designer's activities and relationships, decided through decision-making processes that are based on a combination of values and access to knowledge and trusted sources of information[14]. 'Design's iterative, affirmative, reflective, practical and visioning skills as well as its position at the interface of producer and consumer and technology and society'[15] means that, as actions and ideas, it is well positioned to re-imagine fashion and to explore prosperity that can enable those designing in a professional and non-professional capacity to contribute to prosperity. To undertake such an expansion in thinking and practice requires a navigation system to embrace fashion's multifarious dimensions. In order to bridge the gap between an ecological paradigm and the current state of things, this framework offers a multi-dimensional navigation relating to a spectrum of circumstances, roles and timescales.

The framework has been created through an extended, cyclical period of research, prototyping, testing and review of teaching and professional practice, based on theoretical concepts of sustainability. Led by this paper's author, working with Nina Stevenson, it is informed by a range of participants from MA and BA courses, Non-Governmental Organisations (NGOs) and industry. Applications include a co-created course, developed with Kering, a world leading fashion business. Research has involved gathering qualitative data, via semi-structured face to face interviews[16] focus groups, longitudinal studies and participant reflections on personal and professional practice of a values led and knowledge-based approach to transform both the process and the products of designing[17]. It draws on seven pedagogic principles[18], referencing Education for Sustainability[19]. To consolidate learning from this extended research process (2008-2016) into a more sharable form, the framework was tested in professional settings with designers, product developers, buyers and technicians and reviewed for validity and usability.
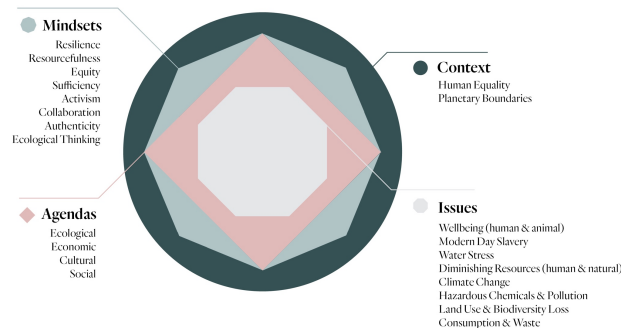
[Figure 1] CSF Framework (Williams, 2018)

Through a process of listening, defining, ideating, prototyping and amplifying, the framework (fig 1) opens up considerations of fashion's macro **context.** This includes a questioning of the errors of modernity perpetuated through a techno-optimistic, eco-efficiency approach[20]. It prompts engagement in a 'profound reappraisal of human values in today's society, a consideration of human meaning and connection to the locale, tradition, culture'[21]. Reflections on the context of designing are then applied into a set of **agendas** to apply values into tangible settings. Four critical, cross cutting agendas are mapped out and overlaid with personal experience and interests to identify points of

[12] Dilnot, C. (2011). Sustainability and unsustainability in a world become artificial: Sustainability as a project of history. Design Philosophy Papers, 9(2), 103-155. doi:10.2752/144871311X13968752924671
[13] Badke, C., & Walker, S. (2013). Design sleepwalking: Critical inquiry in design. In Walker, S., Giard, J., & Ehrenfeld, J. (Eds.) The handbook of design for sustainability. p.6. London; New York: Bloomsbury Academic
[14] Williams, D. (2016). Transition to transformation in fashion education for sustainability. In Leal Filho, W., & Brandli, L. (Eds.), Engaging stakeholders in education for sustainable development at university level. (pp. 217-232). Switzerland: Springer.
[15] Fletcher, K., & Williams, D. (2013). Fashion education in sustainability in practice. Research Journal of Textile and Apparel, 17(2), 81-88. doi:10.1108/RJTA-17-02-2013-B011
[16] Kvale, S. (1996). Interviews. London: Sage.
[17] Williams, D., & Toth-Fejel, K. (2016). The will and skill of fashion design for sustainability. In Leal Filho, W., Azeiteiro, U.M., Alves, F., Molthan-Hill, P. (Eds.), Handbook of theory and practice of sustainable development in higher education 4(1),79-95. doi10.1007/978-3-319-47877-7
[18] Williams and Stevenson, 2012 cited in Williams. D. & Toth-Fejel, K. (2016).
[19] Sterling, S. (2001). Sustainable education: Re-visioning learning and change. Totnes: Green Books for the Schumacher Society.
   Sterling, S. (2013). An analysis of the development of sustainability education internationally: Evolution, interpretation and transformative potential. In Blewitt, J., & Cullingford, C. (Eds.), The sustainability curriculum: The challenge for higher education (pp.43-60). London: Earthscan.
   Ryan, A., & Tilbury, D. (date unknown). Education for sustainability: A guide for educators on teaching and learning approaches. Cheltenham: University of Gloucestershire.
[20] Walker, S. (2017). Design for life: Creating meaning in a distracted world. London: Routledge.
[21] Walker, S., & Giard, J. (2013). Design for sustainability: A reflection. In Walker, S., & Giard, J. (Eds.), The handbook of design for sustainability. London; New York: Bloomsbury Academic.

intervention which participants can directly and indirectly affect. Whilst concepts such as the triple bottom line[22] have informed these agendas, culture is a critical addition in terms of its leverage of change and the distinctive contribution that fashion makes to shaping and responding responding to culture and socially accepted practices.

Following an exploring of the wider systemic elements in designing, participants then approach current, urgent **issues**, identified in the framework. Whilst presenting themselves as critical considerations, they are seen as symptoms, rather than underlying causes of our current vulnerabilities. Learning from previous research, of the overwhelm that can be felt by taking on sustainability thinking, a range of **mindsets** were developed through review of student and professional projects. Each mindset is linked to methods and practices to espouse or try out.

4. OPENING UP THE FRAMEWORK: FINDINGS AND LEARNINGS

Early iterations of the framework were delivered face to face with UK based participants. In order to open up the framework to a broader audience and to elicit feedback, it was adapted into a Massive Open Online Course (MOOC) format. Changes were made to the transmissive tendency of this format, to embed multi directional dialogues, through discussion threads, padlet boards and live debates. Extention of these interactions is encouraged into offline, geographically placed-based environments.

The discussion threads open on every step of the course enabling two-way listening and participation by tutors and learners. Anonomised data relating to specific questions regarding change in self and in practice enables a rich and multifaceted understanding of this values-based approach. Thematic analysis of data from the first two runs of the course, used a manual approach and process described by Miles and Huberman (1994)[23] encompassing data reduction, data display, and conclusion drawing. Emerging themes have been identified, exemplified by representative evidence (italics).[24]

4.1. THEME ONE: ENGAGING IN VISIONING OPENS UP AVENUES FOR CREATIVITY

Responses evidence an expanding of the role of fashion designing beyond that of the creating and acquiring of goods, towards a facilitating of prosperity in broader terms.

Sustainability is important for all of us, both for our lives and for our business, all it takes is a new way to approach things and ideas. It is an opportunity to add sustainability to the concept of valuable, of profit..I think we have the last chance to re-build our way to look at what wealth really means and includes.

Sustainability is important to me because it gives me a wide and long-term goal to reach, injecting energy and determination in my daily actions… it gives me the opportunity to contribute to a positive change that will last over me. It makes me feel as part of human kind.

This expansion of the definition of designing and of prosperity beyond a narrow focus on economic gain evidences a deep questioning, not only of the fashion system, but of wider societal infrastructures. It also suggests that participants are imagining ways to create change with fashion as a conduit, where sustainability acts to expand creativity.

4.2. THEME TWO: EXPLORING VALUES ACTS AS A MEANS FOR DECISION MAKING

In the course, learners reflect on personal and professional values, combined with new knowledge. Questions relate to participant values as judgements based on a notion of what is good and what is bad.[25] Responses evidence a shift towards a rejection of elements of fashion identified as negative/ bad and towards an alignment with elements identified as positive/ good.

We have reached a point where there is no other way for us to see the future of fashion and of all the other sectors of activities without sustainability at its core…. Our job is also to make sure our passion and work does not inflict terrible consequences upon our planet, but on the contrary use them to make a difference and improve the industry and the society.

²² Elkington, J. (2009). Triple bottom line. Retrieved from https://www.economist.com/news/2009/11/17/triple-bottom-line
²³ Miles, M. B., & Huberman, A. M. (1994). Qualitative data analysis: An expanded sourcebook. Thousand Oaks, CA: Sage Publications Ltd.
²⁴ All evidence taken from *Luxury Fashion in a Changing World* online course forum
²⁵ Veugelers, W., & Vedder, P. (2003). Teachers and teaching: Theory and practice, 9(4), 379. doi:10.1080/1354060032000097262 Carfax Publishing, Taylor and Francis Group

4.3. THEME THREE: SUSTAINABILITY PRACTICES INVOLVE LETTING GO OF SOME CONTROL

The process starts with the meta narrative of fashion and then offers practical undertakings at personal scale to consider possibilities and contributions at micro scale. Findings reveal that this process of acknowledging elements within and beyond our direct control is important to grasp.

I am convinced that this framework is really useful and sets the basis to start reflecting on such a complex topic... It has helped me prioritize my concerns and rank them in order to select the ones that I most care about, although I would love to solve them all! The frustrating part is…. that one person can't take into account all the issues, but still must acknowledge them to go on with just 1 or 2.

..the framework is a good tool to start focusing on sustainability and directing efforts towards specific issues. Although.. it would be best if companies started off already with these values in mind,

4.4. THEME FOUR: DEVELOPING CAPABILITIES IN SELF AND OTHERS

The framework-related activities in the course connects participants through conversation, group assignments, peer evaluation and sharing of visual and text-based materials. The discourse evidences capabilities of co-operation, openness and honesty about not knowing as well as sharing of knowledge. The data suggests an acknowledgement of the importance of such capabilities.

What I like most is the holistic approach of all this analysis. Every step and issue are interconnected and you can't work on one without considering the impact on the other.. This could be so powerful both for the workers and for the society.

By engaging in a series of feedback loops between values and actions, data suggests that participants can find their own ways through complex and sometimes uncomfortable considerations.

This framework gives me a better sense of where to start logistically in my own work. It has allowed me to breathe life into the solutions I have found within my manifesto, and reduces the mental stress that comes with carrying the weight of climate change and inequality around in my day-to-day life.

5. CONCLUSION AND NEXT STEPS

If we are to live within biophysical limits and to reduce the wealth-poverty gap, there is a need to deeply change our own behaviour and enable greater equity in our communities and societies. We need to re-align ourselves in a more balanced interaction in nature, the life system in which we are a part. This framework offers ways towards such a re-balancing through fashion designing.

I feel so much more equipped to function as a designer with the underpinning of the CSF framework and all the valuable knowledge gleaned.

From data gathered in a post course survey of 136 respondents, we sought to establish the extent to which engagement in the framework could evidence change in personal perspective and professional practice. The results are encouraging,

81.18% – The course content was relevant to my profession or field
77.65% – I gained knowledge or skills relevant to my profession or field by taking the course
48.24% – My perspective has changed as a result of taking the course

The overall findings from this research progresses an ambition to further apply this framework. It is, however, important to acknowledge its limitations. It seeks to contribute to a wider challenge between an ecological, participatory, equity-based model and the increasingly mechanistic, growth driven focus of both education and business practice. The framework must be at once inclusive and decisive. It cannot compromise on its aim to invert a fashion system based on limited and untenable view of success towards a system that balances a range of elements in prosperity.

Sustainability simply means 'chance for future' to me and therefore it's extremely important to my own practice.

This paper sets out a framework for FDfS education and industry practice. The ecological, participatory, transformative basis of this framework is broadening fashion's possibilities. Sustainability involves a multifarious range

of concerns, activities, approaches and discussions. 'It should be considered in the context of the development of human ideas'[26] and 'the sense that what isn't yet could be'[27]. Such possibilities could and should not be limited by a single, or even multiple frameworks. However, it is only through exchange of ideas across sectors that designing beyond an anthropocentric, myopic view can expand. There is a vital in 'bringing intentions into actions' by creating and 'using professional tools to enable people to make things happen'[28]. There has never been a more vital and critical opportunity to engage a range of participants from around the world in a transformation of the fashion system. In sharing the construct of this participatory framework, it is hoped that it can contribute towards a re-defining of what it is to be human in 21st century. Let's not sustain unsustainability!

Thank you CSF. You have changed my world and way of thinking.

Findings from this research indicate that the definition of prosperity outlined at the start of this paper is within our grasp 'We, as agents and actors, make ourselves in the world that makes us and in so doing, contribute to the making of a world that makes others'[29]. This will only be realized if and when we create, share and apply frameworks and a multitude of other ways, to guide us towards ecological and equity based knowing, doing, being and learning to live together in the world.

BIBLIOGRAPHY

Badke, C., & Walker, S. (2013). Design sleepwalking: Critical inquiry in design. In Walker, S., Giard, J., & Ehrenfeld, J. (Eds.) *The handbook of design for sustainability*. London; New York: Bloomsbury Academic

The Business of Fashion & Mc Kinsey & Company. (2016). *The state of fashion 2017*. Retrieved from https://www.mckinsey.com/~/media/McKinsey/Industries/Retail/Our%20Insights/The%20state%20of%20fashion/The-state-of-fashion-2017-McK-BoF-report.ashx

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

Cross, N. (2006). *Designerly ways of knowing*. London: Springer.

CUSP.ac.uk. [Online] Retrieved from https://www.cusp.ac.uk

Dilnot, C. (2011). Sustainability and unsustainability in a world become artificial: Sustainability as a project of history. *Design Philosophy Papers, 9*(2), 103-155. doi:10.2752/144871311X13968752924671

Elkington, J. (2009). *Triple bottom line*. Retrieved from https://www.economist.com/news/2009/11/17/triple-bottom-line

Fletcher, K. (2008). *Sustainable fashion and textiles: Design journeys*. London: Earthscan.

Fletcher, K., & Williams, D. (2013). Fashion education in sustainability in practice. *Research Journal of Textile and Apparel, 17*(2), 81-88. doi:10.1108/RJTA-17-02-2013-B011

Fry, T. (2011). Design as politics. New York, USA: Berg.

Global Fashion Agenda & The Boston Consulting Group. (2017). *Pulse of the fashion industry*. Retrieved from https://globalfashionagenda.com/wp-content/uploads/2017/05/Pulse-of-the-Fashion-Industry_2017.pdf

House of Commons Evironmental Audit Commission (EAC). (2018). Fixing fashion. Retrieved from: https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1952/1952.pdf

Jordan, K., & Kristjánsson, K. (2017). Sustainability, virtue ethics, and the virtue of harmony with nature. *Environmental Education Research, 23*(9), 1205-1229. doi:10.1080/13504622.2016.1157681

Kvale, S. (1996). *Interviews*. London: Sage.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publications Ltd.

Ryan, A., & Tilbury, D. (date unknown). *Education for sustainability: A guide for educators on teaching and learning approaches*. Cheltenham: University of Gloucestershire.

Sennett, R. (2009). *The craftsman*. London: Penguin.

Sterling, S. (2001). *Sustainable education: Re-visioning learning and change*. Totnes: Green Books for the Schumacher Society.

Sterling, S. (2013). An analysis of the development of sustainability education internationally: Evolution, interpretation and transformative potential. In Blewitt, J., & Cullingford, C. (Eds.), *The sustainability curriculum: The challenge for higher education* (pp.43-60). London: Earthscan.

United Nations Economic and Social Council. (2011). *Learning for the future: Competences in education for sustainable development*. Retrieved from https://www.unece.org/fileadmin/DAM/env/esd/6thMeetSC/Learning%20for%20the%20Future_%20Competences%20for%20Educators%20in%20ESD/ECE_CEP_AC13_2011_6%20COMPETENCES%20EN.pdf

Veugelers, W., & Vedder, P. (2003). *Teachers and teaching: Theory and practice, 9*(4), 379. doi:10.1080/1354060032000097262 Carfax Publishing, Taylor and Francis Group

Walker, S. (2011). *The spirit of design: Objects, environment and meaning*. London: Earthscan.

Walker, S., & Giard, J. (2013). Design for sustainability: A reflection. In Walker, S., & Giard, J. (Eds.), *The handbook of design for sustainability*. London; New York: Bloomsbury Academic.

Walker, S. (2013). Imagination's promise: Practice-based design research for sustainability. In Walker, S., & Giard, J. (Eds.), *The handbook of design for sustainability*. (pp.446-488) London; New York: Bloomsbury Academic.

Walker, S. (2017). *Design for life: Creating meaning in a distracted world*. London: Routledge.

Williams, D. (2016). Transition to transformation in fashion education for sustainability. In Leal Filho, W., & Brandli, L. (Eds.), *Engaging stakeholders in education for sustainable development at university level*. (pp. 217-232). Switzerland: Springer.

Williams, D., & Toth-Fejel. K. (2016). The will and skill of fashion design for sustainability. In Leal Filho, W., Azeiteiro, U.M., Alves, F., Molthan-Hill, P. (Eds.), *Handbook of theory and practice of sustainable development in higher education 4*(1),79-95. doi10.1007/978-3-319-47877-7

Williams, D. (2018). 1990 – Present. In Ehrman, E. (Ed.) *Fashioned from Nature*. London: V&A Publishing. (pp.149-173).

---

[26] Walker, S. (2013). Imagination's promise: Practice-based design research for sustainability. In Walker, S., & Giard, J. (Eds.), The handbook of design for sustainability. (pp.446-488) London; New York: Bloomsbury Academic.
[27] Sennett, R. (2009). The craftsman. London: Penguin.
[28] Fry, T. (2011). Design as politics. New York, USA: Berg.
[29] Fry, T. (2011). Design as politics. New York, USA: Berg.