



CRAFTING SUSTAINABILITY?

An Explorative Study of Craft in Three Countercultures as a Learning Path for the Future

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This article explores and seeks to identify what 'crafting sustainability' could mean in relation to education for sustainable development (ESD). Certain ESD craft pedagogies are explored in three countercultures (from 1900, 1968 and 2017). The empirical data consists of literature from or about these three countercultures. A broad notion of sustainability and the educational philosophies of perennialism, essentialism, progressivism and reconstructivism are used as theoretical frameworks. The findings show the countercultures' educative craft purposes, craft skills and approaches to learning craft and the possible implications for ESD. In particular, three tensions concerning the implications of an ESD craft pedagogy are discussed.

Keywords: *craft, sustainability, education for sustainable development, pedagogy, countercultures*

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Introduction

This article connects craft with education for sustainable development (ESD). One of the interests emerging out of the current craft movement (Cummins, 2010^[1], Jacob, 2013^[2], Luckman, 2015^[3]) is that craft and craft knowledge are promoted as contributing to environmental and sustainability issues and that learning craft therefore contributes to a sustainable future. Even though many people connect craft ideas and the numerous experiences that crafting associates with a sustainable future, few seem to problematize how such pedagogy is being made in relation to environmental and sustainability issues. For example, whom and what does it concern, what crafting skills are needed and what sustainability claims are being made? These are all relevant questions to ask if one is to teach craft as ESD.

The concept of sustainable development was introduced by the UN General Assembly as a way of engaging environmental and development policy to vision a sustainable future that meets the needs of the present generation without compromising those of future generations (WCED, 1988^[4]). Accordingly, sustainable development is defined as a social process in which ecological, social and economic processes are treated and analyzed as three interdependent yet mutually reinforcing dimensions of development (WCED, 1988^[4]; SOU, 2004^[5]). Moreover, education is often put forward as a pathway to sustainable development. Indeed, quality education is integrated to all goals and specifically to number four in the United Nations 17 sustainable development goals in Agenda 2030 (UNESCO, 2015^[6]). Acknowledgement of the importance of access to education is paired with an increasing interest in the acceleration of quality education at all levels and areas of education (ibid.). However, Jickling (1992^[7]) argues that in an education context it is impossible to educate for sustainable development, because there is no consensus about what sustainable development means or what it is aiming for. Similarly, Scott and Gough (2003:2^[8]) argue that the discourse of sustainable development does not present a straightforward answer or solution to global challenges. Rather, it introduces the different definitions of sustainable development that have emerged in different practices, both in relation to the main purposes of these practices and how the practice understands the environment, our place in it and the

consequences of our actions. As a response to this, scholars are now suggesting that ESD research emerges in the nexus of questions about subject matter on environmental and sustainability issues (such as norms and values, people-society-environment relationships, knowledge, local and global orientations etc.) and educational aspects (critical thinking, democracy, learner agency, participations taking action on environmental and sustainability issues etc.) (Stevenson, Brody, Dillon and Wals 2013:2^[9], Van Poeck and Lysgaard, 2016:308^[10]). Hence, in order to understand "crafting sustainability" we need to explore what are privileged as important in a practice' sustainability narratives and how such pedagogy is being made.

The aim of this article is to identify 'crafting sustainability' in relation to ESD. In other words, we are interested in identifying different sustainability narratives in relation to craft and analyze its pedagogy. Craft has a long history of being highlighted as an important pathway to more sustainable future. Hence, we have analyzed three waves of international interests in craft (Luckman, 2015^[11]) in which craft is claimed to contribute positively to societal change. By examining how purposes, desired skills and approaches to learning craft emerge in these waves, or countercultures, we suggest certain ESD craft pedagogies. It is important to point out that we are not examining whether or not the countercultures are sustainable, nor do we intend to create new knowledge on the craft-traditions themselves. Rather, the study should be regarded a starting point for exploring the creative contribution that craft activities can make to the development of ESD practice. Accordingly, the study should speak to educational researchers and practitioners engaged in the long tradition of informal, non-formal and formal craft education in the Nordic countries and beyond.

The article's first section provides a background of craft and craft education. The second section presents the theoretical framework of sustainability and educational philosophies, the methodology and empirical data. The third section presents the findings: a text presentation followed by a summary. In the article's final section, the findings are discussed with the philosophical typology and the implications for ESD.

Background: craft and craft education

Craft is often associated with something that is genuine and hand-made. According to Frayling (2011:9^[12]), this is manifested when major manufacturers promote their wares using craft language, such as "handmade", "hand-finished", "made by our craftsmen", often in combination with 'organic', a word that is repeatedly associated with craft. But what does it mean more specifically? Adamson (2013^[13]) argues that if we want to understand how craft operates around us, we need to understand the ways in which crafting is influenced by how time, the notion of skills and symbolism emerge in crafting action (231^[14]). Further, according to Adamson (2007:3^[15]), craft can refer to a category, an object, or an idea. It can also refer

to a process. He defines craft as "making something well through hand skill" (2013: xxiv^[16]). We concur with Adamson's definition, but would like to add human-material interrelations as an important aspect of the meaning of craft, in what Ingold (2013:31, 69-70^[17]) defines as "making as correspondence". Hence, in this article we define craft as *skilled hands making products (together) with materials*.

One way of framing craft practices is to identify them as formal, non-formal and informal education. As formal education, learning crafting corresponds "to a systematic, organized education model, structured and administered according to a given set of laws and



norms, presenting a rather rigid curriculum as regards objectives, content and methodology" (Zaki 1988:1^[9]). As non-formal education, craft also exists in educational practices that Zaki (1988:2^[9]) characterizes as having "flexible curricula and methodology", that is "capable of adapting to the needs and interests of students" and "is contingent upon the student's work pace" (ibid.). Finally, as informal education, crafting exists in practices that do not "correspond

to an organized and systematic view of education" (6). As such, it does "not necessarily include the objectives and subjects usually encompassed by the traditional curricula" (ibid.). Accordingly, even if a craft practice does not have a formal curriculum, it can operate as an educative practice. How we address this aspect of crafting is further developed in the description of the theoretical framework and methodology.

A theoretical framework

A broad notion of sustainability

First, we deliberately adopt a broad definition of sustainable development as a multileveled process in which social, ecological and economic processes function together to maintain a resilient socio-ecological system. Such a broad definition works to our advantage, in that it allows us to analyze how "sustainable development" or "sustainability" emerges in the studied crafting practices. In other words, we examine the educative purpose of craft in order to be able to say something substantial about the different countercultures' visions of a more sustainable future. Overall, the fact that the result of the study portrays the different craft practices as countercultures is of relevance for their sustainability narratives. Indeed, it is likely that the practice of countering something (often what is perceived as a hegemonic situation of relevance for the practice in question) is part of the privileging of the content of the said practices. Consequently, it is to be expected that the different notions of sustainability that emerge in the countercultures of craft presented in this article are related to their countering qualities. However, this study does not aim to explain why particular notions of sustainability emerge. Rather, the aim is to explore which notions of sustainability emerge and relate them to fundamental educative purposes. The question of why notions of sustainability emerge is important, but is far too wide a topic for this particular study. A broad analytical definition of sustainable development is helpful because it allows the concept to be applied to the material that was published before sustainable development became a popular area of research and policy. As we are looking for emergent notions of sustainability, qualities can be identified as what we currently refer to as sustainability narratives, regardless of whether they were or are "told" and were or are not codified in sustainability terms.

Second, one of the perhaps most significant questions about any practice involving learning and/or education is: What is its purpose? This could have negative connotations, as in 'what is the point of learning how to craft?' However, questioning the purpose of a practice is an effective way of identifying its learning content. Accordingly, drawing on a typology of educational philosophy, we are interested in which, if any, learning claims are embedded in the craft counterculture movement. Hence, in relation to the question of how crafting relates to a foreseeable sustainable future, educational philosophy is used as a theoretical framework in order to highlight the purposes, views of knowledge and approaches to learning that are adopted in the various strands of craft and crafting.

A philosophical typology

In our exploration of the emerging educative value of craft counterculture movements we use an educational philosophy typology (see Brameld, 1950^[9]). This is because these philosophies represent "different ways of evaluating the content and procedures of educative practices in relation to its *specific purpose* and *[its] societal role*" (Öhman 2006:28^[9]. Our translation and italics). The educational philosophy typology of four approaches, namely:

A *perennialist* approach to education is often based on the idea that a certain kind of basic knowledge (and values) is vital. Accordingly, education should focus on knowledge and skills that enforce and guide discipline, control and order to legitimize current social hierarchies, e.g. patriarchy. Moreover, collective societal goals are downplayed when the education focuses on each individual citizen's spiritual growth (Gustavsson 2002:87-88^[9]). Accordingly, perennialism acknowledges learning as an individual endeavour, even though the individual does not take an active part in the learning process, but is simply the recipient of knowledge and skills.

A second approach to education, *essentialism*, emphasizes that scientifically grounded knowledge and skills should be transferred from the teacher/expert to all students, regardless of class and experience, and be operationalized to create a functional society by means of clear objectives, facts and technology. The main purpose is to enlighten students through scientifically verified knowledge about the world. Thus, skills such as ranking and categorization are important in that they lead to a separation of the educational content into specific subjects. Here there is an emerging split between theory and practice, in that the operationalisation of facts into socially useful functions becomes a priority (Gustavsson 2002:88-90^[9], Englund, 1997:133^[9]).

This celebration of utility-oriented and expert-led education is questioned by *progressivism*, according to which the purpose of education is to function as a potentially strong social transformative force by facilitating the learning of deliberative practices and action. The strong demarcation between school (theory) and everyday life (practice) that essentialism implies is blurred as learners' experiences are considered vital for efficient and relevant learning. Thus, "learning by doing" becomes important, in the sense that progressivism highlights how education can enable learners to identify, differentiate and deal with social challenges



collaboratively in order to sustain democracy and increasingly celebrate deliberative organizations and institutions (Gustavsson 2002:90-93^[1]).

The institutional and organizational inertia from which progressivism sometimes suffers creates *reconstructionist* responses, according to which the purpose of education is to continuously remodel society, its politics, ideologies and values. This transformative and reformative approach to education suggests that social norms, institutions and ways of dealing with and assessing scientific facts are best approached as social constructs. In addition, education is seen to be played out on a conceptual continuum of consensus and controversy. Interestingly, socio-materiality becomes a topic of concern for reconstructionism. Matter is no longer considered as the static backdrop of human, i.e. political action, but is instead problematized as communicative and intermeshed with the social. Hence, socio-materiality both enables and inhibits learning and educational objectives, in that it contributes to the sedimentation of certain educational content and social structures (93-96^[1]).

Analytical procedure and method

As in all analyses, our methodology is guided by the purpose of the study (Säfström & Östman, 1999^[2]), which in this case is to identify 'crafting sustainability' in relation to ESD in different craft traditions. To fulfil this purpose, the study is guided by the four research questions introduced above and which correspond to the following three steps: selection of study material, analysis and critical discussion of the implications for ESD.

Step one: Selection criteria and material

The first step of the study was to select the study material according to three selection criteria: (a) that the craft tradition is relevant in relation to our stipulated broad notion of sustainability (see above), (b) that the craft tradition deals with formal, non-formal or informal educational activities, which refers to how the activities are potentially (perennialist, essentialist, progressivist and/or reconstructionist) educative and result in the learning of new facts, skills and values in relation to issues of sustainability and (c) that the selection of material maximizes a variation in views of how craft is related to sustainability. The maximum variation criterion (including using gender variation, i.e. stories about craft and sustainability from both "female" and "male" participants) meant exploring material beyond and within the Nordic context¹. Maximizing variety is important from a discourse-analytical perspective, because by contrasting Nordic craft practices from the perspectives of craft movements emerging in other regions, the similarities and differences between Nordic craft values, norms etc. and those of "outsiders" become visible and possible to explore (Eagleton,

We have used these four different approaches to education to elicit a number of research questions that will help us identify the relationship between education, craft and sustainable development.

- 1) What is the educative purpose of craft?
- 2) Which craft skills are valued to achieve the purpose?
- 3) Which approaches to learning emerges in the practice of craft?
- 4) What are the implications of "crafting sustainability" for ESD?

Identifying the main purpose of craft as it emerges in the different practices is vital in order to understand how craft portrays itself as a practice concerned with a sustainable future (Q1). In this, it also is important to identify the kind of skills that are regarded as important to achieve the purpose (Q2). Finally, the approaches to learning are identified, i.e. how a subject is taught and learnt, by whom and how the teaching and learning is made visible in practice (Q3). Consequently, answering Q1-3 will help us to understand the meaning of "crafting sustainability" and to discuss its implications for ESD (Q4).

1989^[2]). Importantly, the variety should not be too "different", because that would diminish the relevance of the results for enabling a critical-creative discussion about craft, education and sustainability in the Nordic context. Thus, the ambition with this article is that the results of the study, which both mirror and differentiate between Nordic and other craft traditions, will facilitate critical-creative discussions.

Although there is an extensive body of relevant literature, there is a limit of the amount of literature that can be covered in one article. This means that the study should be perceived as a starting point for exploring the creative contribution that craft activities can make to the development of ESD². Moreover, the craft traditions that are focused on in the analyses are both different from and similar to the Nordic craft traditions. An example of the latter is how the first wave (described by Otto Salomons and Uno Cygnaeus) highlights ideas of craft education, how the second wave and the "gröna vågen" (green wave) in Sweden and Norway during the 1970s share similar ideas and how the third wave's practices has Nordic similarities. For example, Arnqvist (2014^[3]) identifies craftivists as "guerilla slöjd" drawing in Nordic examples. Also, in the woodworker tradition, "spoonfests" (spoon carvers meeting at Sätergläntan in Sweden) and "makerspace" (meeting in different places in the Nordic countries) are also common in the Nordic countries today.

By utilizing the three selection criteria, we have explored British, North American and to some extent Swedish craft traditions and

¹ This could also embrace race and class, or take an intersectional approach. We are aware that this would increase the value of this selection criterion, although due to limited space and the relevance of gender in the history of craft, we have chosen not to examine race and class, or take an intersectional approach.

² Thus, our ambition with the study is not to give a full historical description of a particular movement, the texts, the author's intentions, or what the texts might have meant to the reader at the time in which they were written.



used time to both indicate internal variation (Cummins, 2010^[1], Jacob, 2013^[2], Luckman 2015^[3]) and to point to three specific countercultures, or waves of international interest in craft: 1900, 1968 and 2017.

The first wave reflects the arts and crafts movement at the turn of the nineteenth-twentieth centuries. This movement started in England around 1900 and spread throughout Europe, America and Japan. Here, literature describing John Ruskin's and William Morris' ideas about craft is studied using texts by Adamson (2013^[4]) Frayling (2011^[5]), Jackson Lears (1981^[6]), Morris (1968/2010^[7]) and Sennett (2008^[8]). The narrative that is drawn from this literature is mainly about craftsmen. In accordance with the criterion gender variety, we also present findings from the Swedish home crafting movement (hemslöjdsrörelsen) emerging in Sweden at the time. Here, we focus on general ideas about craft using the works of Danielson (1991^[9]), Isacson (1999^[10]), Lundahl (1999^[11]) and Waldén (1999^[12]).

The second wave, which coincides with the heady countercultural hippie days of the 1960s and 1970s, was the result of a Euro-American social movement that produced a variety of political ideas and actions embracing inclusive, non-profit and non-violent activism (Lewenhaupt, 2002:135^[13]). Two groups can be identified in this movement. The first is sometimes referred to as 'hippies' (from the words hip and happy). As there are no clear pioneering figures, we draw on Lennerht (2000^[14]), Lewenhaupt (2002^[15]), Eldvik (2010^[16]) and Morozov (2014^[17]) to present the general craft ideas of the period. The second group is headed by Steven Brand, who created the "Whole Earth Catalogue". Here, important literature for the analysis is that of Kirk (2007^[18]) and Morozov (2014^[19]).

Finally, we have dated the third wave to 2017, because it reflects the current movement. Here, material from three groups are studied: the woodworker tradition (Schwartz 2011^[20] and Sellers 2015^[21]), the "craftivist" movement (craft + activism) (Greer 2008^[22] and Levine and Heimerl 2008) and the "makers" movement (Hatch 2013^[23] and Anderson 2012^[24])³.

Altogether, all the material (both first and second-hand) are central authoritative sources (Esaïasson, Gilljam, Oscarsson and Wängnerud, 2007:291^[25]). Where central authoritative sources (i.e. in the hippie tradition) are lacking we have been obliged to use other sources, such as craft and fashion literature.

Educative purposes in the first wave: 1900

Arts and crafts movement

John Ruskin and William Morris, pioneering figures in the arts and crafts movement, claimed that true craftsmanship had disappeared and been lost to machines (Jackson Lears, 1981:62, 83^[26]).

Step 2: Analysis

The second step of the study was to analyze the selected material following research questions 1–3 (see above). First, the material was coded in relation to the question of the educative purpose of craft. As a result of this coding, we were able to discern the differences between the different craft countercultures described above as a synthesised answer to the question of the educative purpose. As mentioned above, a purpose-oriented analysis emphasizes the content of the practice, which is highlighted in terms of its concrete aims. This means that any part of the studied material that explicitly expressed an intention of an activity, a desirable outcome, or a recommendation was coded in terms of its purpose, goals and aims and was analyzed further. The results of this analysis are presented in the findings section, together with a text for each movement.

Secondly, the analysis focused on identifying and classifying the kinds of skills and approaches to learning that could be deduced from the already analyzed purposive activities. Accordingly, the coded data was used as a starting point for the analyses, because the purpose of an activity is often described in concrete terms, such as how to acquire certain skills, become more socially responsible, or develop the self. The deduction was informed and complemented by a second coding using sensitizing concepts describing the kind of content and outcome that was talked about, i.e. skills. Regarding the analysis of different approaches to learning, particular attention was paid to identifying participants the different practices involved: learners/students, teachers/educators/facilitators and material. The difference between the approaches to learning crafting are largely defined by who or how these categories are populated and how the interaction between the participants can be characterized. The results of the analysis are presented in the findings section in terms of four identified skills – where all the movements are presented together, and two approaches to learning. The results from questions 1 – 3 are summarized in a table (figure 1).

Step 3: Implications for ESD craft pedagogy

The third step of the study involved discussing the implications of the results for ESD (question 4). These are presented in the discussion section, below. This involved relating the results of the study according to the philosophical typology (questions 1-3). Here, each craft practice analyzed was related to the philosophical typology and, for the sake of clarity, presented as an image (Figure 2). To further emphasize the implications for ESD, three ESD tensions were discussed.

They argued that crafts people should return to working with their hands, as this gave them joy. Ruskin argued that "medieval cathedral builders (unlike modern factory hands) remained satisfied with their material lot because they found joy in their

³ Thus, our ambition with the study is not to give a full historical description of a particular movement, the texts, the author's intentions, or what the texts might have meant to the reader at the time in which they were written.



labour" (ibid.). Ruskin's anti-machine stance can also be noted in his argumentation about how good craftsmanship is learned:

You can teach a man to draw a straight line; to strike a curved line, and to carve it...with admirable speed and precision; and you will find his work perfect of its kind: but if you ask him to think about any of this forms, to consider if he cannot find any better in his own head, he stops; his execution becomes hesitating; he thinks, and ten to one he thinks wrong; ten to one he makes a mistake in the first touch he gives to his work as a thinking being. But you have made a man of him for all that, he was only a machine before, an animated tool. (Ruskin quoted in Sennett, 2008:133^[4])

For Ruskin, it was important for the craftsman to keep control of the entire crafting process, which meant having the right skills and the right knowledge about the process as a whole (Sennett, 2008:113^[4]). He thus favoured small products, such as woodworked ornaments, which he regarded as beautiful examples from skilful hands. In addition, Ruskin argued that craftsmanship meant being willing to do something well for its own sake, even when faced with difficulties (114^[4]). Another educative purpose of craft is the making of beautiful items (ibid.). According to Adamson (2010:146^[5]), creating useful and beautiful items is also noticeable in one of Morris' favourite proclamations: "have nothing in your houses that you do not know how to use or believe to be beautiful".

Educative purposes in the second wave: 1968

Hippies

Luckman (2015^[6]) acknowledges that the second (hippie) wave of international interest in craft occurred in the 1960s and 1970s. Hippies embraced craft for its political and back-to-the-earth qualities (Wagner, 2009^[7]). Back to nature was a slogan that inspired young women and men to start crafting. A strong tendency to knit and crochet garments and household items like blanket and lamps emerged (Lehnert, 2000:72^[8]), strengthening the main purpose of craft as political, in the sense that its project to "go back to nature" and become self-sufficient was defined in contrast to mainstream politics. However, as Wagner (2009:2^[7]) points out, for the most part, its participants tossed quality aside and instead maintained that anyone could learn to craft.

Here, the main educative purposes are: (a) political in its aim to "go back to nature" and (b) to become self-sufficient.

"Whole Earth Catalogue"

In this period, another counterculture movement emerged that also celebrated simplicity, back-to-the-land sloganeering and especially the endorsement of savvy consumerism as a form of

To summarize, the educative purposes of craft are: (a) to give the craftsman joy, (b) to have the expertise and skills to control the entire crafting process, (c) to be willing to do something well for its own sake and (d) to make the crafted item beautiful.

The Swedish home craft movement

Another movement that emerged around 1900 in Sweden was the Swedish home craft movement⁴. Danielson (1991^[9]) argues that the purpose of craft in the Swedish home craft movement was for craftswomen to make functional, durable and neat products⁵. Another purpose of craft was to make beautiful products (Waldén 1999:77^[10]; cf. Ågren 1999:52^[11]). According to Waldén, beauty was accomplished through heritage and tradition. For example, old folk patterns, such as old lace patterns, are beautiful, whereas the new crocheting patterns found in contemporary journals are not (ibid.).

What was considered beautiful was also a reaction to industrial mass production (Danielson, 1991:202^[9]). The 'modern' product was repeatedly compared with traditional, individual and necessary home products (Waldén, 1999:77^[10]). Finally, the movement gave rise to the purpose of craft as educating Swedish women in good taste and good behaviour (Lundahl, 1999:211^[12]).

In this movement, the educative purposes of craft are: (a) to make products that are functional, durable and neat, (b) to make beautiful products and (c) to educate Swedish women in good taste and behaviour.

political activism (Morozov 2014^[13]). Stewart Brand, one of the prime movers, argued "the consumer has more power for good or ill than the voter" (2). In 1968, Brand published the first issue of the "Whole Earth Catalogue", which states:

We are the gods and might as well get good at it. So far, remotely done power and glory – as via government, big business, formal education, church – has succeeded to the point where gross obscure actual gains. In response to this dilemma and to these gains a realm of intimate, personal power is developing – power of the individual to conduct his own education, find his own inspiration, shape his own environment, and share his adventure with whoever is interested. Tools that aid this process are sought and promoted by the Whole Earth Catalog. (Brand quoted in Kirk, 2007:1^[14])

Accordingly, the idea with the catalogue was to provide readers with tools that "generate a holistic, expansive guide to modern life that defied reductive categorization and promised all readers a return to personal, individual agency and autonomy" (Kirk, 2007:2^[14]). In other words, with the aid of these tools a person could make or craft anything he or she wanted to. Brand wanted to create a

4 In Swedish this is called "hemslöjdsrörelsen".

5 In Swedish, "ändamålsenligheten, varaktigheten och prydligheten".



service that would blend liberal social values and technological enthusiasm with the emerging ecological worldview that he as a biology student encountered at Stanford University (ibid). Here, the pur-pose of craft is to become self-sufficient, but instead of doing it together with others, like the hippies, to do it on a more personal and individual basis. Brand's interest was to combine

technology with an ecological worldview, the goal being to provide every individual with a personal computer.

Here, the educative purposes are: (a) political in order to become self-sufficient and (b) through craft to combine technology with an ecological worldview.

Educative purposes in the third wave: here dated at 2017

Luckman (2015^[6]) defines the present-day attentiveness to craft as the third wave of international interest (cf. Cummins, 2010^[7], Jacob, 2013^[8]). Anderson (2012:13^[9]) states that the movement is characterized by making (product or process) that is shared online: "Individual makers, globally connected, become a movement". As the movement is not easily portrayed as one unit, we present three groups, all of which share their crafting and making (product or process) on the internet.

Woodworkers

Woodworkers Paul Sellers and Chris Schwartz have many followers on their blogs and YouTube channels and reach out to thousands of people every week. Sellers describes his mission as follows:

What we teach today is working to re-establish methods that have real value for the wellbeing of woodworkers and wood-working as a whole. I may not like the computer too much or the internet for that matter, but reaching hundreds of thousands of people every week worldwide means I have peace about the future of woodworking now that it no longer relies on adverts, magazines and machine manufacturers steering the future but an ever-increasing body of woodworkers who care about skilled work in real woodworking. (Sellers, 2015^[10])

In this quotation, Sellers points to several woodworking purposes, such as re-establishing methods with real value for well-being, knowing woodworking as a whole and caring about skilled work in real woodworking.

Schwartz (2011:10^[11]), also a woodworker, argues that woodworking is a political act. Accordingly, "[w]oodworking might seem a traditional, old-time skill, it is quite radical in this consumerist age where buying stuff is good and not buying stuff is considered fringe behaviour". Schwartz continues by pointing to the craftsman's expertise: "the mere act of owning real tools and having the power to use them is a radical and rare idea that can help change the world around" (11). Both Sellers and Schwartz mainly teach people how to make furniture and useful woodworking items.

Here, the educative purposes are: (a) to re-establish woodworking methods, (b) to know woodworking as a whole, (c) to create well-being and (d) to become political by knowing how to woodwork.

"Makers"

This group consists of what the participants themselves call 'makers'. They argue that they "do what they love", which is to invent things. Anderson (2012:11^[12]) argues that:

Making is fundamental to what it means to be human. We must make, create and express ourselves to feel whole. There is something unique about making physical things. Things we make are like little pieces of us and seem to embody portions of our soul.

One of the purposes of this maker-practice is to invent new things. Another purpose is that invention, i.e. the making, creates a feeling of wholeness. Hatch (2013:2^[13]) exemplifies what makers need to do in the *Makers' Manifesto*. He suggests that makers should *make, share, give, learn, tool up, be playful, participate, support others* and *change*. At the end, Hatch concludes by saying that "since making is fundamental to what it means to be human, you will become a more complete version of you as you make" (ibid.). Drawing on the manifesto, being playful, sharing your knowledge with others and strengthening identity help makers to be self-fulfilled. Due to the cultural norm of sharing designs and collaborating with others in online communities, the practitioners use open file standards that allow anyone "to send their designs to commercial manufacturing services to be produced in any number, just as easily as they can fabricate them on their desktop" (Anderson, 2012:21^[14]). The products that are made can be anything that uses technology in combination with analogue making, such as 3D printers or soldering iron.

For makers, the educative purposes are to: (a) do what you love, (b) invent new things, (c) be creative, (d) share and support others and (e) become a more complete version of yourself as you make.

"Craftivism"

It is argued that the last group, "craftivism" (craft + activism), is a marriage between historical technique, punk culture and DIY (Do It Yourself) ethos and is influenced by traditional handicrafts, modern aesthetics, politics, feminism and art (Levine & Heimerl, 2008^[15]). Greer (2008^[16]) argues that craftivism is a reclamation of the hand-made, which according to Greer proves that these craft skills are valuable, worthwhile and something to be proud of. The purpose of craft is not just to create for its or your own sake. Instead, Greer



argues, using your crafting skills and creativity enables you to take part in your community as a responsible member:

One of the benefits of social engagement is that you knock people out of their routine and make them notice things they would normally overlook. You got them to stop and say, "I've never seen that before", instead of looking down to their feet as they normally do. When you see a light pole with a knitted band of bright colours around it, you notice the pole itself instead of letting it blend into the background ... By making our surroundings a little more beautiful, we claim responsibility for our environment. (63^[9])

Craft skills

As they have emerged in the first step of the analysis, the different purposes of craft can also be discussed in terms of which craft skills are acquired. Here, skill is defined in accordance with Ingold's (2000:316^[9]) understanding of skill as a form of knowledge and form of practice. In the purpose-based analysis, we have identified four different skills that we found in the empirical data: (a) functional skill, (b) aesthetic skill, (c) spiritual skill and (d) etiquette skill. These different types of skill are described below.

Functional skill

Functional skill can be identified in all three waves. In the arts and craft movement and in the woodworker tradition it means learning how to master the various crafting techniques in order to control the entire crafting process. In the Swedish home and craft movement, functional skill leans more towards utility, i.e. mastering techniques in order to make functional and durable products for the household. A third aspect of functional skill arises during "the Whole Earth Catalogue" movement. Here functionality is blended with skill about how to be creative and innovative in order use the tools in an entrepreneurial way.

In crafting, functional skill can also be understood as knowing the handicraft in order to transform society, as it is exemplified during the present craftivism movement as a political practice. A final aspect of functional skill entails embodied knowledge and material awareness in order to craft high quality furniture and other items that will last, e.g. in the woodworking tradition. Here, as both Sellers (2015^[9]) and Schwartz (2011^[9]) argue, the embodied aspect of functional skill is connected to learning how to use affordable hand tools, rather than expensive machine tools that do the work for you.

Aesthetic skill

As far as we can ascertain, aesthetic skill is not often mentioned in the history of craft, although it is important in the sense that the aesthetic value of crafted objects is often highlighted as a reason why craft and crafting are considered valuable practices. In our analysis, aesthetic skill refers to the importance of knowing how to craft beautiful products, for example in terms of being inspired by

By displaying knitting and embroidery in public spaces, "craftivists" claim that they make the world a better place. Greer (101^[9]) argues that through craft you can creatively voice your opinions, which "makes your voice stronger, your compassion deeper and your quest for justice more infinite". One example of a craftivists product is the colourful knitted patterns that are found in public spaces, often together with a political message.

The educative purposes here are: (a) to take responsibility for the community and the environment, (b) to reclaim the handmade and (c) to make the world a better place, "stitch by stitch".

nature. Aesthetic skill is important in the arts and craft movement, in the sense that learning how to craft involves learning how to experience joy while crafting beautiful products. It is also found in the Swedish home craft movement and the expression of beauty in relation to heritage and old traditional crafts and patterns.

Spiritual skill

In this context, spiritual skill does not mean religious aspects of craft and crafting. Rather, somewhat like aesthetic skill, spiritual skill refers to a learning content that transgresses concrete technical knowledge or utility-oriented functional skill. Spiritual skill thus refers to a learning content that involves knowing how to develop individual agency, which includes autonomy and well-being. This kind of skill can also be conceptualized as learning how to become who you are, as in the woodworker tradition, where knowing the 'real' craft is integrated with a sense of self. Spiritual skill also includes learning how to be playful, creative and innovative: all of which are highlighted in the makers- movement. Arguably, learning the spiritual aspects of crafting is accompanied by learning how to master data technology and electronics, as well as analogue skills such as building and soldering.

Moreover, there is an aspect of spiritual skill that concerns the intrinsic value of knowing how to craft, i.e. learning how to do it well for its own sake, regardless of function. However, spiritual skill is not limited to individualistic perspectives, but also involves learning how to develop compassion for others, the environment, growing together as a collective and how, in crafting, to be engaged in political activities.

Such social or communal engagement is also evident in the makers-movement, with its interest in learning how to share knowledge using open file standards. The idea is not just to learn for your own sake, but to share your knowledge with others, so they can also benefit from your creativity. In the purpose-based analysis, we have identified spiritual skill in all the craft waves except the Swedish home and craft movement, where it is not quite so evident. A final aspect of spiritual skill comes from the hippie movement, in which the willingness to make is an important skill content. Framed like this, this skill



content highlights that learning how to craft is for everyone and is not restricted to an expert.

Etiquette skill

Although it is reasonable to assume that certain crafting etiquette is important in all the waves and practices of craft analyzed in this

study, etiquette skill is of special concern in the Swedish home and craft movement. Here, crafting is part of learning how to behave, i.e. the good behaviour of women is seen as a learning content of crafting. This form of skill can also be seen in the Swedish home and craft movement as developing what is referred to as good taste, which overlaps with aesthetic skill

Approaches to learning

Drawing on the purpose-based analysis and the skill analysis, a number of ideas about learning in craft have been identified. In the discussion section we explain how the different waves of craft and their craft practices can be situated in the educational philosophy typology. However, at this point we would like to present some of the key learning concepts identified in the analysis. As in all learning processes, crafting involves categories of participants: learners, teachers and materials. The difference between the approaches to learning crafting are largely defined by who or how these categories are populated and interact.

Expert-oriented learning

The expert-oriented learning approach appears throughout the history of craft and is based on the idea that certain crafting skills define the specific craft that is engaged in and that those practising the crafts need to learn. For example, Ruskin writes that “ten to one he thinks wrong; ten to one he makes a mistake in the first touch” (Ruskin, quoted in Sennett, 2008:133^[9]), which signifies that if there is a wrong way there is also a right way. Hence, according to this approach, the craft expert is a necessary component in the learning of craft. The skilled expert is someone who can and will point out the right and wrong way to use the tools, treat the material and structure the process. Thus, arguably, an expert-oriented learning approach is present in both the arts and craft movement and the Swedish home craft movement. In the latter, a knowledgeable expert is needed who can guide Swedish women to learn the right skills, know what is beautiful and what constitutes good manners. Here, these categories are exemplified by craftswomen (experts and novices), local nature-based materials and the tools that are needed.

The expert-oriented learning approach can also be seen in the woodworker tradition, albeit in a lightly less authoritative way. Although this approach means learning from a knowledgeable craftsman or expert, the learning mainly takes place through the teaching/sharing of expertise on the internet. With respect to the identity of both learners and teachers/experts, the materials and tools used should be of good quality and durable.

The expert-oriented approach to learning is also present in craftivism when learning from others. This entails intergenerational learning, where craftivists learn from their grandmothers by reclaiming craft from domesticity and embracing new feminism

(Greer, 2008:13^[10]) and from others on the internet. In many cases, the sharing of good techniques, materials and skills is a prerequisite for learning to take place. Using hash tags on finished items published online is a common way of connecting with other “teachers” and learners, mostly women, using yarn and the appropriate tools.

Learning (or not) by doing

As the expert-oriented approach to learning can be seen as a continuum of an authoritative learning practice and a more collaborative and sharing learning practice, learning by doing indicates a more individualistic approach to learning. Learning by doing, which has been popularized in relation to how the writings of John Dewey have influenced formal, non-formal and informal education practices, involves less focus on the teacher/expert and more focus on the experiential knowledge or skill that is created in the process of trying, doing, failing, trying again, doing, failing again and so on. Thus, making mistakes is an important aspect of this approach to learning. According to Ruskin, learning the right way also takes time. Ruskin argues that it is the potential and realized mistaking that distinguishes man from a machine. Consequently, learning by doing sometimes overlaps with the more authoritative strand of the expert-oriented approach to learning crafting and can involve experts and novices and the use of “hand-size” nature material.

As it comes across in the maker tradition, the learning by doing approach means learning by doing it yourself. Seemingly alone, you try to do something, but fail in the doing. This is not considered a huge problem, in that the “learning by failing” approach is embraced. However, the maker version of this approach to learning also means that people can learn with and from others online by sharing their work and the mistakes they have made in the process. Although some women are involved in the maker movement, the majority of makers are men. Interestingly, in this specific version of learning by doing, the kind of material is irrelevant, although new technology, such as 3D printers, is often used.

A learning approach at the other end of the spectrum to that of expert-oriented learning is the kind of learning by doing that emerges in the hippie movement. This particular approach to DIY is based on the idea that everybody can learn and that expert knowledge of any kind is unnecessary, which also means that the quality aspect is tossed aside. What seems to be important here is that the crafting material is referred to as “natural” and its authenticity stems from



nature and is not refined. This can include wool used for knitting, or flax or hemp for macramé. Set in a context of increasing environmental awareness, this embracing of “natural” material can be seen as a response to the oil crisis and the abandoning of polyester yarn

(Lehnert, 2000:72^[1]). The learning by doing approach and the environmental concern of the hippie movement is also shared by the earth catalogue movement, although the latter is not restricted to authentic natural material but also makes use of new technology.

	Purposes of craft	Desirable skills to achieve the purpose in question	Approaches to learning/ who and what participates
1900 I: arts and crafts movement	<ul style="list-style-type: none"> (a) Provide the craftsman with joy (b) Have the expertise and skill to control the entire crafting process (c) Willingness to do something well for its own sake (d) Make the crafted item beautiful. 	<ul style="list-style-type: none"> (a) Functional skill: crafting techniques, control of the whole process (b) Aesthetic skill: craft beautiful products (c) Spiritual skill: find joy 	<ul style="list-style-type: none"> (a) Expert-oriented learning (experts and novices) <p><i>Men, material from nature</i></p>
1900 II: the Swedish home craft movement	<ul style="list-style-type: none"> (a) Make functional, durable and neat products (b) Make beautiful products (c) Educate Swedish women in good taste and behaviour 	<ul style="list-style-type: none"> (a) Functional skill: crafting techniques, making functional, durable products (b) Aesthetic skill: good taste (c) Spiritual skill: good behaviour 	<ul style="list-style-type: none"> (a) Expert-oriented learning (experts and novices) <p><i>Women, local material from nature (+ silk and cotton)</i></p>
1968 I: the hippie movement	<ul style="list-style-type: none"> (a) Political in its project to “go back to nature” (b) Become self-sufficient 	<ul style="list-style-type: none"> (a) Functional skill: Willingness to craft (c) Spiritual skill: grow together as a collective 	<ul style="list-style-type: none"> (a) The collective learns by doing <p><i>Men and women, material from nature</i></p>
1968 II: “the whole earth catalogue” movement	<ul style="list-style-type: none"> (a) Political in its project to become self-sufficient (b) Combines craft and technology with an ecological worldview 	<ul style="list-style-type: none"> (a) Functional skill: creativity, innovation, ability to use tools, entrepreneurship (c) Spiritual skill: individual agency and autonomy 	<ul style="list-style-type: none"> (a) The individual learns by doing <p><i>(Men?), tools, technology and any material</i></p>
2017: I Woodworkers	<ul style="list-style-type: none"> (a) Re-establish woodworking methods (b) Knowing woodworking as a whole (c) Create well-being (d) Become political by knowing how to woodwork (anti-consumerism) 	<ul style="list-style-type: none"> (a) Functional skill: crafting techniques, control of the entire process, embodies woodworking knowledge and material awareness (c) Spiritual skill: well-being 	<ul style="list-style-type: none"> (a) Expert-oriented learning (experts and novices) + sharing <p><i>Majority men, good quality material</i></p>
2017: II “Makers”	<ul style="list-style-type: none"> (a) Do what you love (b) Invent new stuff (c) Be creative (d) Share and support others (e) Become a more complete version of yourself as you make. 	<ul style="list-style-type: none"> (a) Functional skill: creativity, innovation, ability to use the tools entrepreneurship (c) Spiritual skill: become who you are 	<ul style="list-style-type: none"> (a) Learning by doing + sharing <p><i>Majority men, technology and analogue making materials</i></p>
2017: III “Craftivism”	<ul style="list-style-type: none"> (a) Take responsibility for the community and the environment (b) Reclaim the handmade (c) Make the world a better place 	<ul style="list-style-type: none"> (a) Functional skill: know the handicraft (c) Spiritual skill: compassion for others, political activism 	<ul style="list-style-type: none"> (a) Learning by doing / or from someone <p><i>Majority women, yarn</i></p>

Figure 1 summarizes the findings of research question 1 - 3

Discussion

This article seeks to identify what ‘crafting sustainability’ might mean in relation to ESD. A variety of purposes of craft have been identified in the three studied countercultures, including the desired skills connected to those purposes and a number of approaches to learning, such as what and who participates in the learning practices. But what are the implications of these findings for learning for a sustainable future, i.e. for ESD? Below, we discuss this fourth research question by (1) relating the four educational philosophies to the craft practices, visualized in Figure 2 and (2) highlighting some key implications for ESD.

Figure 2 illustrates the educational profile of our analysis of the different craft practices (Cf. Englund 1997:134^[6]). Essentialism is in opposition to progressivism and points to the tension between an ‘expert oriented’ pedagogy and a ‘learning by doing’ pedagogy, and also with regard to a subject content in which certain facts, content and skills are treated as taken for granted in essentialism yet explored by followers of progressivism. The other tension illustrated in the figure is that between perennialism and reconstructivism. This tension indicates that the values and norms that are taken for granted in perennialism are continuously reconstructed in reconstructionism. This tension is sometimes interpreted as a time perspective, where the embracing of past traditions and values is contrasted with an unknown future that embraces innovation and new technology (even if new technology is not necessarily part of an unknown future).

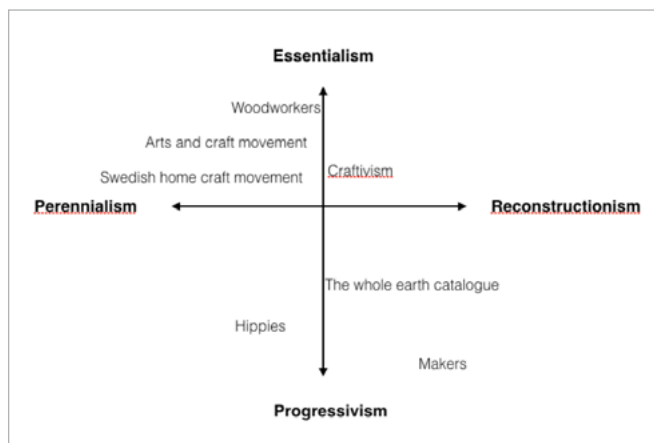


Figure 2. Illustrates the educational profile of our analysis of the different craft practices

As the above figure illustrates, the analysis shows that the arts and crafts movement, the Swedish home craft movement and the woodworker tradition are all influenced by perennialism and essentialism. Value-laden knowledge about good craftsmanship and the skills of functionality, spirituality and aesthetics are all present in these craft practices, as is to some extent also tradition and heritage.

Craftivism is more difficult to place in the figure. Our suggestion is that the movement has elements of essentialism, in that it stresses

the importance of learning specific craft facts when learning a handicraft and that craft should be open to anyone who expresses a willingness to learn. However, craftivism also has elements of reconstructivism, due to its explicit assumption that crafting involves political aspects in terms of creating a better world (although what a better world is, is not described in detail). Hippies, “the whole earth catalogue” and “makers” are all influenced by progressivism. Hippies are to some extent also influenced by perennialism due to the “going back to nature” element, whereas makers and “the whole earth catalogue” underline the importance of invention and embracing new technology, which, we suggest, places them closer to reconstructionism.

Implications for ESD

A learner’s agency and capability to take action on environmental and sustainability issues is a capacity that is highlighted in ESD research. In our study, a learner’s agency is perhaps most obvious in the pedagogy of progressivism, due to its focus on learners’ experiences, which in the figure points to “the whole earth catalogue” and “makers”. However, an essentialist craft pedagogy could also be argued to contribute to a learner’s agency and capability to take action on environmental and sustainability issues, for example by knowing the whole process (a purpose in the arts and crafts movement), making long lasting products (argued to be a political act by woodworkers) or having the skill to mend and repair (as in the Swedish home craft movement, where functional and utility purposes are present). In fact, the study suggests that knowing craft can empower its practitioners and also that learners’ agency is present in all the craft practices that we have studied. In view of this, a relevant question to ask is whether learners are capable taking action on environmental and sustainability issues, and if so, which? If crafting empowers its practitioners, we can also ask, empowered for what? Our findings suggest that at least three tensions need to be taken into account when considering learners’ agency and an ESD craft pedagogy.

The first tension to be identified is the individual versus the collective. For example, one of the purposes of craft in the hippie movement is to empower “the people” – the collective. If we instead look at the “the whole earth catalogue”, the purpose of craft is to empower the individual. This tension has pedagogical consequences, depending on whether we are educating for an elite, or if learning craft is for everyone and for everyone’s benefit. It can also be argued that, as seen in the woodworker tradition, having general crafting skills and repairing or crafting long-lasting products is, in a neoliberal society, a political act of anti-consumerism. Another aspect of this tension is between the pedagogically privileged and under privileged. That is, to what extent can everyone learn to craft or produce long lasting products? Who is privileged to learn? To what extent is formal, non-formal and informal craft education available for everyone? A conclusion that can be drawn from this study, and related to the individual versus the collective



tension, is that each practice is (more or less) gendered. That the practice in 1900 is gendered is hardly surprising. Nevertheless, a stereotyped gender structure seems to continue throughout the history of crafting. For example, making things from yarn is female, and working with wood or technology is male. In other words, it is not just products that are crafted in each practice, but also identities. Suddenly, the purpose of craft is not just ideas. Rather, specific narratives of 'crafted sustainability' are embodied and materialized. When talking about an ESD craft pedagogy, it thus becomes crucial to ask what is included and excluded in an educative craft practice in terms of gender, class, race, environment and more-than-humans?

The second tension that is identified as having implications for ESD relates to the first tension but is slightly different, namely the embodied craft person's relation to the world s/he inhabits. The experience of joy is an example from the findings that exemplifies this tension. Expressing joyfulness when using aesthetic and spiritual crafting skills can be found in many of the examined practices. In the arts and crafts movement and the woodworker tradition, joy and well-being are experienced when the crafts-person is able to use his/her skills to do things "the right way" or to craft durable products with high quality materials. As experiences of joy and well-being are embodied experiences, at the same time as the very reason for having these experiences is connected to a prevailing discourse of what constitutes durable, beautiful or useful crafts, these enacted experiences are signs of a tension (or connection) between the intimately embodied and the social. Similarly, makers express joy and well-being when they do what they love to do, which is to invent new things. Craftivists express joy when they help or affect others with their craft. The embodied experience of joyfulness might be the same, but is achieved by means of different pedagogies and goals and always has some kind of broader, social or shared well-being on the horizon. In other words, there are different pedagogies of the body related to sustainability. Hence, the implications for ESD relate to how we learn to engage with, experience and alter the environment in which we live and, further, how this embodied experience, such as being enchanted, informs our reflections on and beliefs about the world (Shilling, 2016:57¹¹).

Conclusions

To close, this article is an explorative study that seeks to identify what 'crafting sustainability' could mean in relation to ESD. When examining craft's educative purposes, skills and approaches to learning, a variety of experiences and narratives emerge in relation to a possible ESD craft pedagogy. Thus, drawing on the studied craft practices, there are many possible implications for ESD, some of which overlap or reveal conceptual and other contradictions. Three

This can be discussed in terms of which sustainability issue the participant pays attention to as s/he experiences these positive affections. For example, the craftivists learn how to pay attention to the women that have gone before them and their skills, such as knitting, and further to pay attention to feminism and feminist research, the ideas of which they express through craft. Makers learn to pay attention to their own and other makers' creativity and innovation, whereas woodworkers learn to pay attention to the specific techniques and tools used by other skilful woodworkers. These are all examples of how the different countercultures imply that the creation of joyful embodied experiences is the key for learning how to craft and that each example points to different sustainability purposes. The tension of the embodied crafts experience and a person's relation to the world that is inhabited through craft points to a variety of sustainability futures.

The third tension to be identified is that between ecological, social and economic dimensions. A time perspective can highlight these tensions and illustrate how the dimensions have been valued over time in formal, non-formal or informal education. For example, a core argument in the arts and crafts movement was that as a craftsman's knowledge was no longer valued things could be made by machines, which cut costs and led to cheaper products. Although it is beyond the scope of this article to fully flesh out these arguments, it does seem obvious that there is a tension between the social (care for the craftsman) and the economic (produce cheaper products) dimension. Another example of this tension is that although the crafting of high quality products (with machines or hands) cost more, they are likely to last longer and, from a resource perspective, can be argued to be sustainable. We could give many more examples from the findings that point to different sustainability narratives. However, what we would like to emphasize here is the fact that what is being valued is also likely to be passed on through education. Which old craft traditions, if any, are valued and therefore taught and sustained in our Nordic societies today? Are mending and repair skills worth teaching, knowledge about crafting materials or rather a creativity as a matter of self-expression? The answers to these questions are complex and many, but what dimensions of ESD need to be reflected on when discussing crafting sustainability, and especially when discussed as an ESD craft pedagogy

specific tensions have been identified: (1) individual vs collective, (2) embodied experience vs. the world a person experiences and (3) ecological-social-economic tensions. All these tensions have implications for an ESD crafts pedagogy. Further, the purpose of any craft practice is more than just an abstract idea. It is an embodied and materialized narrative that needs to be considered if such narratives could be taught as a learning path for the future.



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