ABSTRACT
This paper describes two comparative case studies; one co-crafted playground workshop conducted in central Gothenburg, Sweden and one in Dunga Beach, Kisumu, Kenya. The idea behind the workshops was a hands-on, co-crafting playground that explored the intersections between children’s activity. The workshop in Gothenburg was held for five days in Vasa-dormant public places through building collaborative capabilities, participatory design, and knowledge sharing between stakeholders. Data was collected from both children and adults through environmental autobiographies. The process was documented through photography, sketching and note taking. Observations and interviews were conducted throughout the process.

Keywords: co-crafted playground; participatory design; fragal design tool; action space; collaborative capabilities; sustainable urban public spaces

1. INTRODUCTION
About half of the world’s population lives in cities and urban settlements, a number that will increase even further.7 As cities around the world are becoming denser and more crowded, public spaces for play and recreation are at risk of being reduced.1 The UN Convention of the Rights of the Child (UNCRC)2 states that all children should have the opportunity “to rest and leisure, to engage in play and recreational activities appropriate to the age of the child and to participate freely in cultural life and the arts” (Article 31). The Convention also states, that “parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child” (Article 12). Nussbaum (2013) also states that play is a fundamental human right and is one of ten “Central Capabilities” that should be provided by society.4 This means children should have the right to be involved in development processes which concern their own life and well-being, in this case a dedicated space where they can play and rest. According to UNDP (2017) participation is key in implementing sustainable development in practice. The core of participatory design is that “people who are affected by the change should be actively involved and have a say in the process”.5 This means participatory designers can make a valuable contribution to target both the Sustainable Development Goals and the UNCRC. However, as stressed by Helena Kraff, a design researcher who has seen participatory pitfalls in East Africa, (2018),6 participation should not be taken for granted and new tools and methods are needed that reflect these complexities. This paper explores a concept, called Frangeto Playground, a methodological concept we argue can provide an action space for developing collaborative craft capabilities. The aim of the paper is to reflect around challenges and benefits of collaborative work in temporary playground with co-creation in focus. It also explored how play might become more than just a child’s activity. The workshop in Gothenburg was held for five days in Vasa-parken, a central park in Gothenburg, Sweden while the workshops in Kisumu were held for a total of three days. The workshop investigated how a ‘Do It Yourself’ craft activity could become a catalyst for: collaboration and knowledge sharing between stakeholders in neighborhoods; activating dormant or derelict public spaces and/or local livelihoods; opening up opportunities in predefined, functionally determined urban environments; new arenas for design & craft production; encountering the unexpected and spurring social imagination. The research question was: How can the concept of the co-crafted playground provide an action space that supports building collaborative capabilities, with the goal of contributing to more sustainable cities and communities?

Contributions of these workshops include: reflections around what values and challenges collaborative work in public spaces between various stakeholders gives to a design-process aimed for positive social change. The paper also contributes to a discussion about how designers and craftsmen can benefit from each other by finding arenas for collaborative work, and finally: a discussion of what we can learn by comparing different cases in Scandinavia and East-Africa. The method used was action research and reflective comparative case studies. Data was collected from both children and adults through environmental autobiographies. The process was documented through photography, sketching and note taking. Observations and interviews were conducted throughout the process.

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REFERENCES
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1.1 THE RESEARCH CONTEXT

Kisumu is the third largest city in the country and is one of the fastest growing cities in Kenya. It is hereby defined as a frugal context. The name ‘frugal’ means being “smart” or “economic,”1 and in this research, frugal refers to the sparing conditions that characterize the design context in Kenya: “resource scarcity constraints”, “affordability constraints” and “institutional complexities”.10 It primarily concerns the lack of participatory approaches (that involve children), as well as the lack of formal structures (for play). The research was part of a larger research program that was conducted within the framework of Mistra Urban Futures (MUF), an international center for sustainable urban development.1 One research activity within MUF brought together seven PhD students from Sweden and Kenya in a ‘core group’.11 The goal was to co-produce knowledge clusters12 around design and urban development by using a transdisciplinary and participatory research approach. Since this case was project based it had a defined start and stop. The goal was therefore to create global networks,3 which it found necessary to carry and create knowledge clusters. In contrast to projects a network and knowledge clusters will last over time. However, to do so requires that the relations are nurtured, otherwise the network will dissolve. The common place for implementation of the different research projects in the core group was a fisherman’s village, Dunga Beach, located by the Eastern part of Lake Victoria, six km outside Kisumu city. The expected outcomes of the knowledge production process was to contribute to new livelihood opportunities. One development area and research theme was Ecotourism, which suited well as the community wanted to invest in local tourism, where the visitors aimed at were not the traditional Safari tourists, but rather local communities, churches and schools.13 Another theme of interest was Marketplaces, which forms the core of a village/city and links production and consumption systems at large, including food, cloth, waste management, etc. In this specific case the aim with the global network activities was to co-produce knowledge around playgrounds in Kenya and Sweden, which belonged to the two themes. The co-operation became a starting point for a platform to establish a knowledge cluster on children and play that could be implemented in the local practice and livelihoods. The PhD’s in the core group represented different knowledge backgrounds as well as different socio-cultural and economic backgrounds, this meant that there existed different views of how to deal with co-production and participation. These multiple framings11 became a collaborative challenge. To bridge the different knowledge perspec-
tives and cultures, and being able to formate a joint vision, something that could bring the diverse actors together was needed. Two of the PhD students: a Swedish design researcher and a Kenyan researcher in Architecture, who are two of the authors of the paper, identified lack of adequate spaces for play in the frugal context. A joint idea of developing a concept called “the co-created playground” was born and the initial exper-
iment was conducted in Gothenburg Sweden in April 2013. A few months later a similar experiment was conducted in Dunga Beach by the Kenyan researcher. This experiment gave valuable expe-
rience when conducting the joint exper-
iment in Kenya in October 2013.13

2. THEORETICAL FRAMEWORK

The theoretical foundation of this research process is a set of concepts, articulated by Otto von Busch: co-craft, action space and collaborative capabilities, described in this section and unpacked in relation to the frugal design research context.

2.1 CRAFT

According to Adamson (2013), craft is a manufactured artifact, which can be defined as “making something well through hand skill”.14 He argues that the “inven-
tion of craft” emerged during the early nineteenth century, at a time when artis-
naal labour was separated out from other related processes and products.15 However, as Adamson emphasizes, arti-
nanal work has a long tradition before that, but it was only after the indus-
trial revolution that it was possible to talk about craft as “a separate field of endeavour”.16 As identified differ-
ence between crafts and design is that while craft has a “deep connection with materiality and cultural continuity”,17 design is sometimes being accused for “lacking hand skill”.18 Hand skill is being too future oriented26 The local design culture in Kenya is anchored in a small-scale innovation culture, the Kili Sector” where only simple tools and locally accessible materials are used, this means the mode of production is closely connected to a craft based design approach. Hence, it is different from design and innovation as conducted in the Global North, which is adapted to a larger scale of production, often with the use of advanced technologies.

2.2 CD-CRAFT

In this paper, we use the term ‘co-craft’, which is closely related to co-design as an instantiation of co-creation, which von Busch sees as co-craft as “a tool for artisan inno-
vation and civil engagement through the design and craft spheres”.19 Co-craft is here viewed as a participatory design tool which is used to connect to the local

from an often-marginalized social group in the design process, namely the children. The co-created playground is here to give access to structured play spaces and the craftsmanship that comes through the creation of these spaces, where the children are viewed as experts on play. Describing, analyzing and discussing the travel of the co-created playground is the core of this research article. It builds on an earlier paper that was co-written by three of the authors.1

The research primarily builds on earlier work by Busch (2008; 2013), a design researcher who has explored how design and craft “can be shared among many participants as a form of civic engagement, building community capa-
"bilities through collaborative craft and social activism”.10 In this paper, three key concepts from his work are highlighted: co-craft, action space and collabor-
ative capabilities, which also form the theoretical framing of this research paper. While von Busch research is based in the context of Global North,11 this paper contextualizes and test the theories in a case study based in Kenya-Sweden-design context.12 Argue that the African design context can give new perspectives on these theories, and to the field of partici-
patory design as a whole. The research question that has guided this process is: how can the concept of the co-created playground provide an action space that supports building collaborative capabilities, with the goal of contributing to more sustainable cities and communities?

1.3 THE RESEARCH CONTEXT

This research project started in 2012, in Kisumu, Kenya, located on the Eastern shore of Lake Victoria. Kisumu is the

7 Hansson, Helena.; Mwango, Franklin.; Granse, Jarl.; Nyström, Maria; Sjöberg, Jörgen. “A Transdisciplinary Research Approach to Challenges and Benefits of Co-produc-


10 Ibid, p. 125

11 The distinction between Global North and South refers to the socio-economic and political gap that exist between so-called developing countries (Global South) and developed countries (Global North). According to UN, co-operation between Global North and South should be encouraged as this is seen as a potential to promote inclusive and sustai-
mental-coordination/south-south-cooper-

12 Definition of ‘Fingerprint’ https://www.

13 According to Bhatti & Ventresca, a fingerprint is characterized and by the above mentioned construc-

14 The co-operation was part of a larger research program which included local universities as research platforms, for example in Gothen-
burg, Sweden and Kisumu, Kenya. The platform in Sweden, which was the main hub, was named Gothenburg Local Interac-
tive Platform (LIP), while the plat-
form in Kenya was a local node named Kisumu Local Interactive Platform (KIP).15

15 This research project was a colla-
aboration between the two platforms in Got-
thenburg and Kisumu (KIP). This North-South co-operation platform was later renamed to Sweden-Kenya Interac-
tive Learning Labs (SKILLa), https://www.

16 According to Carayannis et al (2008), a knowledg
e cluster “represents a specific configuration of knowledge and possibly also knowledge types”. Ref: Carayannis, Elachis and David FJ Campbell “Mode-
3 and Quadruple Helix: twenty-first century frui
tional innovation system”, International Journal Technology Management, 42, 1 (2009): 1-20. See also Ref. (Not yet pub-
lished), Nyström, Maria, Sjöberg, Jorgen, Jaacovm Åsa, Marcus, Johan, Stenströ, Björklund, Lisa, “East Afri-
can Urban Academies, Chairers Uni-
tity of Technology, Gothenburg, Sweden (2016).

17 Transdisciplinary means a co-opera-
tion between researchers from differen-
ter disciplines (Mahlab, 2007), whereas the local practitioners is the area in target for the development activities - play an active role and had a voice in the processes which was initiated by the researchers.

18 A global network can be explained as a “local-to-local” activity which moves “across a flatland”. Such a new on know-
ledge production refers to Action Network Theory (see for example Carayannis, 2012).

19 Ecotourism is catering for holiday makers in the natural environment with- out damaging it or disturbing habitats. It is a form of tourism involving staying (frugally) in natural environment and often small scale alternative to standard commercial mass tourism.


21 This table chart in the Appendix of how the co-creative process was con-
ducted in Sweden and Kenya and then how it moved in-between contexts.22 Glenn Adamson, The Invention of Mode-3 (Waltham: Elsevier, 2015:8).


23 Ibid, xvi

24 Ibid, xii

25 Ibid, xii

26 Ibid, xiii

27 The commission of “Building Resear-
innovation culture in Kenya. As Gewald et al reflect (2012), 27 most innovation activities in Africa have been imposed from outside, and local innovations have often been replaced by innovations having been developed elsewhere. In worst case such “top-down” approaches risk creating a cultural conflict, but as a result, many development processes also stop after the projects come to a terminal end. 28 By adapting a co-craft approach, as this study suggests, the design adapts to the local knowledge clusters and technologies that already exist. Like in a co-design process, the interface and the roles between professionals and amateurs, producers and users, are blurred. At the same time the difference in the process is crafts based, which better suits the frugal conditions. Since only simple tools and crafts based technologies are used, co-craft makes it possible for many people to engage, even if resources are scarce. As a mate-

rial art, craft helps to make change real and tangible for all involved. In addition, a co-craft approach supports cultural continuity, where the inventions build on the local innovation culture rather than replacing it. In total this makes co-craft a sustainable design approach when designing in frugal contexts.

2.3 ACTION SPACE

Even if there are several potentials embedded in the concept of craft and co-craft, von Busch argues that craft practitioners should be more concerned about how the craft making “affect our

abilities.” 29 He suggests looking into the concept of “action space”, which he defines as “the rooms for maneuver” (2012). In total this makes it possible for many people to engage, even if resources are scarce. As a mate-

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researcher, who produced the empirical material together with a Kenyan researcher in Architecture and with local practitioners, who is the second author and who is herein named The Kenyan design researcher, The division of labour was that the Swedish design researcher planned and conducted the first experiment (4.1), while the second experiment (4.2) was planned and conducted by the Kenyan researcher.

3.1 DESIGN INTERVENTIONIST RESEARCH

The co-crafted playground concept relates to the method design intervention, which in turn relates to action research (Lewin 1946). An intervention can be seen as a change experiment in the field rather than in a laboratory. The core is that the researcher intervenes in the situation being researched, rather than just being a passive observer. (Board, 2010, “Jahns, 2013”). Buchanan (1990) views the design intervention as a working hypothesis for exploring issues of concern, where the aim is to identify the views of all participants, which makes design intervention a participatory design method. Rather than being a solution-oriented method, Halse & Boffi (2014) explain design intervention as an explorative and experimental research approach that “does not aim to test a prespecified solution to a defined problem, but enables new forms of experience, dialogue and awareness about the problem to emerge”. In this case study two design interventions were staged, which are named “the experiments”. Significant to this study was that co-craft was used as a tool in conducting the design research, since the hypothesis was that this would make it possible to engage the perspectives of different stakeholders in Sweden and Kenya including children and adults.

3.2 FOLLOWING OBJECT: STUDYING THE ‘TRANSLATION’ OF THE PLAYGROUND

To analyse the experiments, the Actor Network Theory (ANT) related method “following object” was used, combined with photo diaries. According to Czar- niewska (2014) following object can be seen as a form of “shadowing”, which is a social science method where selected people are followed in their everyday tasks during a specific period of time. However, following an object means the observed actor is a material object not a human being. The object in this study, the co-crafted playground, was transformed when it was adopted into the local Kenyan fragal design context. From an ANT perspec- tive, this can be explained as a translation process, where translation means “displacement, drift, invention, mediation, creation of a new link that did not exist before and modifies in the part of the two agents” (Latour, 1999). To study this drift of the concept is the main focus for the study, since it creates a deeper understanding of the challenges participatory designers need to consider when acting in frugal contexts.

4. CASE STUDY: THE CO-CRAFTED PLAYGROUND

The case study follows how the co-crafted playground concept was co-developed by the Kenyan and Swedish researchers. Due to political uncertain- ties at the time, a planned field work activity in Kenya by the Swedish design researcher was hindered. Encouraged by von Busch, at that time the Swedish design researcher’s supervisor, she decided to conduct the planned research activities of the playground concept in Sweden, described below in 4.3. This first experiment was a one-week activity planned and conducted by the Swedish design researcher in the beginning of April 2013, and the site of exploration was Vasuparken, a public park in Gothen- burg, Sweden. The experiment built on the experiences from a summer course titled “Garden play” and the aim was to explore how co-craft activities/construc- tions could help to activate the park. The second experiment (4.2) took place in Kisumu and was a two day activity that was jointly planned and conducted by the Swedish and Kenyan researchers, both present in Kisumu. They worked in collaboration with the community members in Dunga Beach, the site of experiment. The second experiment built on an intervention conducted by the Kenyan researcher earlier on, who had followed the work in Sweden and had developed it further. This meant the second intervention was designed to merge the perspectives of the two.

4.1 THE CHANGE EXPERIMENT IN SWEDEN, APRIL 2013

The first experiment was a one week activity titled “Crafting Playce” that became part of the 19th European Academy of Design Conference, EAD. The space of exploration was a public park in central Gothenburg, Vasuparken, which was offered for free by Gothen- burg Municipality. The aim was to create a Do-It-Together (DIT) activity with the research objective to activate an unused space in the city and attract a new audience to the park (children and youth) through co-crafting. The research activity was partly planned and conducted together with an American PhD collaborator in design, working at the same institution as the Swedish design researcher. The key partici- pants and key-constructors in the inter-vention were 14 students from the Master program Child Culture Design program at HDK. The students’ task was to construct simple playstruc- tures in willow as a way to activate the site and engage children in the making, and the students were taught simple craft techniques by a profes- sional willow weaver. An additional crafts technique was added which was rope making, that was introduced by two professional rope-makers. A crafts consultant was involved to support the organization of an open workshop during the weekend where the public was invited to co-construct and play. The result was three sculptural play objects: a speter family, a balancing basket and a climbing/balancing net. The process/method involved the following: first the students were introduced to the task as part of their curriculum. They were thereafter taught the craft techniques by a professional willow weaver. Thereafter they explored the park together with the design researcher and the willow weaver. Based on this, structures for play were designed by the students, a process which took place before the actual inter-vention. To the children. In bringi...
the children’s perspectives, participants from a pre-school in the age of four to five were invited as “experts”, together with a parent who was also a specialist on childrens’ culture. The idea was to give input to the design process while the playground was still under construction. There was also an open invitation for any by-passing citizen, children as well as adults, who showed interest and attraction by the students’ creations. During the weekend the invited rope-makers held an open workshop together with the crafts consultant involved, and the public was invited to co-construct and play. The children could build on the existing structures or make their own constructions, a process where the children took the lead, only supported by the adults. The playground was designed to be a temporary structure and was therefore deconstructed after the research experiment was over. This was done together with the public, who were given the material for free. Finally a written evaluation was made with the students, who were given the opportunity to take part in a cultural activity where they could create their own play space to be proud of. The participants of the workshop had all been invited to the workshop in advance through an open invitation. The participants were, except from the two design researchers who had planned the activity, community members such as local crafts women/ men and tour-guides. Other actors involved were two international volunteers at an NGO in the village and three Swedish students, who were studying a Bachelor program in Leadership in Handicrafts at the University of Gothenburg (Conservation department). The students were acting as assistants to the Swedish design researcher. The material used were wooden poles and sticks, similar to willow and sail ropes. An additional element was also introduced which was a simple, hand-held rope-making machine (see figure 4b). All materials were brought to the site and were fairly expensive, in order to make it last longer. The process started with a preparation phase where the material was collected with support from a craftsman living in the village, who also participated in the workshop. This phase included invitations to the community and request for physical space onto which the playground could be built. Day one started with the Kenyan researcher in Architecture introducing the method Environmental Autobiographies. All the participants were to identify play memories from their childhood, a way to bring in a child perspective and make them re-connect to nature and space. Around 28 participants (10 children and 18 adults) sketched and shared ideas, including the Swedish design researcher. After a discussion and joint decision making, it was decided to make three play structures that were common among the all environmental autobiographers done. During day two (a) the construction started on site, but because of the time constraints, only two structures were built: a combined structure with swings including a shelter to protect from the sun, and a hop Scotch structure made from ropes. Approximately 40 participants engaged in the construction phase. A significant observation was how people from the local community constantly entered and exited the construction site, attracted by the activities. Thereafter the constructed structures were tested by both adults and children, and in this phase, the mothers of the children added new material to the constructions: for example, hanging plastic bottles that gave an extra play dimension to the structure. It was noted that the adults played on the structures as much as the children as they reminisced their childhood play scenes. The work was thereafter orally evaluated in public. An unexpected result was that the co-crafted playground did not last over time, even if this had been the intention. The constructions were ripped off their structure was completed with a handrail made of ropes, made by the children and only supported by the adults (image 4c).

5. ANALYSIS OF THE CHANGE EXPERIMENTS

In this section, the two change experiments in the field are analysed with support from the concepts of co-craft and Action Space.

5.1 CO-CRAFT - TRIGGERS PARTICIPATION AND CREATES CULTURAL CONTINUITY

A key concern with the co-crafted playground was to create a concept which could adapt to the different material cultures in both Sweden and Kenya. By using simple and similar materials and techniques, such as willow/ sticks, wearing and rope-making, and by engaging the people that were most affected by the change, co-craft became partly a participatory design tool, but with a bridging effect. A cultural difference was that in Gothenburg, the children were directly involved in the making, while in Kisumu the child perspective was brought forward with support from the method Environmental Autobiographies. As the images below show, new change potentialities were co-created even if there were frugal constraints, which points to the global potentialities of the concept. In Vasaparken, a designed balancing structure was completed with a handrail made of ropes, made by the children and only supported by the adults (image 3c).
3a). In Dunga Beach (3b), a different kind of balancing structure was created, and again the ropes acted as handrails. This observation captures what we see as the core of co-craft process, which is that the designer does not try to replace what already exists, but rather builds on it by indicating new potentialities. The materializations are made to trigger participation, and by encouraging and embracing local differences, a cultural continuity is created. At the same time, we identified several challenges with the co-craft concept. One context based challenge is the importance to change the right material. For example, in experiment 4.1 the chosen material worked well, and could even be deconstructed and reused. In the second experiment (4.2), in a frugal context, similar material was instead being perceived as fairly expensive. To use poles and sticks that was brought to the site, was an attempt to make the structure last over time. However, as the material was so desirable, people wanted to keep the material for individual use afterwards, which we refer to as an affordability constraint, which was probably the main reason why the playground did not last.

5.2 THE CO-CRAFTED PLAYGROUND AS A SHARED LEARNING OBJECT

One concrete result of the co-crafted playground was that new rooms for manoeuvre were created that did not exist before. The social effect was also that it brought various people together for joint actions, who would not have otherwise met. In both experiments, we observed how the simple crafts-based technologies (weaving and rope-making) made it possible for a variety of participants to engage and make contributions, even without having the professional craftsmanship skills. As the co-crafting activities took place in public (and semi-public) spaces, the individual actions needed to be co-ordinated. As the joint efforts became visible both for the participants and the surrounding, which attracted new actors to the site. One key observation was made how the co-creative work stimulated conversations, for example pivoting around technologies and durability of the materials. It was found that the playground, as an action space, provided a space for joint learning. That people shared ideas and perspectives while they were working together, is identified as a huge potentiality. The materializations are rather builds on it by indicating new possibilities. The materializations are based on the fact that the designer does not undertake the actions needed to co-ordinate. As the joint efforts became visible both for the participants and the surroundings, which attracted new actors to the site. One key observation was made how the co-creative work stimulated conversations, for example pivoting around technologies and durability of the materials. It was found that the playground, as an action space, provided a space for joint learning. That people shared ideas and perspectives while they were working together, is identified as a huge potentiality. The materializations are rather builds on it by indicating new possibilities. The materializations are based on the fact that the designer does not undertake the actions needed to co-ordinate. 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were Imagination, Senses and Thought (CC4), Affiliation (CC7), Play (CC9) and Control over one's environment (CC4), were Imagination, many actors' perspectives to be aligned consuming, not at least since there are a complex endeavor, and time as the study brought forward, collaboration and materialized through the creation of the co-crafted playground. The primary user group in this study was the children, and the core idea was to co-create a space where they could laugh, play and rest, which refers to CC9 Play. The children's right to play and be part of the decision making are stated in the UN Convention of the Rights of the Child and the SDGs, and as the analysis illuminated, there also exist several complexities which need to be unpacked and discussed.

6.1 A CO-CRAFT PROCESS REQUIRES TIME AND OWNERSHIP

One of the Central Capabilities that this study relates to is that of Affiliation (CC7), which in this case meant that children should have the opportunity to engage in collaborative processes, together with others. Since the interventions were taking place on accessible public sites, it meant anyone who wanted to participate in the co-creation was invited. This made it possible for a variety of actors to meet and interact, and it was shown that co-craft was a successful method in getting people involved, since participation was made possible even without having professional craftsmanship skills. However, as the study brought forward, collaborative and participatory practices are a complex endeavor, and time consuming, not at least since there are many actors’ perspectives to be aligned and co-ordinated. Time is an important resource needed to adapt to the local context, so that local variations can be identified and acknowledged. There must also be time to anchor the process in the local culture, in order to create ownership, which supports continuity. However, in this case the continuity was challenged, and one possible reason was that it was not well anchored in the local culture. In order to be sustainable, participatory designers must consider time and ownership as a combined design element, in order to support continuity.

6.2 An Action Space Must Also Include a Space for Joint Reflection

Another highlighted Central Capability in this paper was that of Senses, Imagination and Thought (CC4), which refers to peoples’ opportunities to “imagine, experience and produce works and events. In this study, this capability was implemented through the creation of the co-crafted playground, which as an action space provided room for manoeuvre where people could meet and jointly construct ideas of change. As it was found in the analysis, an identified favour was the concrete nature of the concept, which did not only make change real and tangible for all actors involved, but also helped to attract new audiences to the sites of exploitation. As a material-based art, the concrete aspect is embedded in the very concept as such, but as von Busch highlighted, crafts people (and designers) should be more concerned about how the crafts making “affect our abilities” (von Busch 2008). What was found to be a lacking design element in this case was an organized space for joint reflection, where the actors involved could reflect and thereby increase the understanding of the learning outcomes. To contribute to more sustainable design practices, we argue an action space should also include a space for reflection, where the concrete making should be combined with more abstract thinking, which in this case was only provided to a certain degree.

6.3 Methods Are Needed Which Also Concern the Non-Participant Perspective

The last highlighted capability in this paper was (CC10), Control over one’s environment, where the core message is that citizens of different ages should have the possibility to “participate in governing processes that concerns themselves”. This, which is the core of participatory design, was also shown as the most challenging aspect to handle when designing in a frugal context. The ultimate goal with the co-crafted playground concept was to create new change opportunities where people had the freedom to act and choose. As the analysis brought forward, people do not always have the possibility to participate, even if they want to, even if this is the core intention. Depending on different cultures and life-situations, the views of participants differ. The crux seems to be how to make sure that each stakeholder’s interests are properly acknowledged, even if they cannot be physically involved for different reasons. One design method, Environmental Autobiographies, was introduced as a methodology by the

Kenyan design researcher and was found highly valuable, as it brought in the child perspective and helped the adults to reconnect to childhood memories and re-invent play. We argue that development of such empathic design methods are much needed, especially in frugal contexts, where the people’s participation cannot be taken for granted.

7. Conclusion

To learn more about participation based in an African design context this paper zoomed into a specific place in cities and communities dedicated for our youngest citizens in society, namely the playgrounds, which due to frugal constraints and the densification of our cities, run the risk of being reduced. Theories of “Co-craft, Action Space” and “Collaborative Capabilities” (von Busch 2013), were used as theoretical frameworks to acknowledge the frugal constraints but also to find a way to bridge between actors, cultures and contents. The case studies included two change experiments in the field (design interventions), which were compared, one in Sweden and one in Kenya. After analysing and discussing the concept of the co-crafted playground and its collaborative qualities, three key findings were identified, which we argue should guide future design processes in order for them to be more sustainable and to increase peoples’ capabilities in driving change.

Figure 5.a: Co-craft as a space for relaxation. Relaxation was an important aspect of play and became an important part of the co-crafted playground concept, in Sweden

Figure 5.b: Co-craft as a space for relaxation. Relaxation was an important aspect of play and became an important part of the co-crafted playground concept, in Kenya
7.2 FUTURE RESEARCH
For future studies, we suggest to further look into how co-craft can be further integrated in design as a participatory tool and space for learning. We also suggest to explore design methods that can help to increase the awareness of cultural differences and non-participation. For example, role play may be an interesting method to explore and implement in such collaborative design processes. It is also suggested that bigger efforts should be made on understanding how to organize spaces for reflection when designing in public open spaces, since reflection is central for learning.

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References
BUSCH, O. v. D. H. (2018). One of the keynote speakers at the 10th European Academy of Design conference was Professor Otto von Busch, who in his lecture discussed how on “co-creation” can be a social craft for innovation by drawing references to the “Capability Approach”, an economic concept developed by economist Amartya Sen. This was a way to reason how cooperation can be a component that supports the development of general social political social justice. http://www.craftinnovation.eu/news/keynote.html. Date accessed November 2019.
A cikk összehasonlító elemzéssel ismertet két esettanulmányt: egy közösségi együttműködő beszúró-Svédországi Göteborg, illetve a kenyai Kisimu példáján. A műhelymunkák hátterében az aktív részvétellel, közös alkotással megvalósított játszóterek ötlete állt, amely innovatív módon aknázza ki a kézművesség, a tervezés, a játék és a szabadtér közösségi színterei közötti kapcsolatot. A műhelyek fel tudták annak elvét, hogy egy „Csináld magad!” jellegű alkotó tevékenység hogyan játszhat katalizátor szerepet a lakók közösségek közötti együttműködésben és tapasztalatok alapján. A Göteborgi műhely a város egyik központi parkjában, a Vasaparken ötnapos volt, míg a kisumui három napig tartott.

A kutatás alapkérdése, hogy miként válhat az épített környezetben egy "kézműves alkotással kialakított játszótér" a képzelőerő, a tudásátadás, a játék és az együttes alkotás közösségi színterévé a különböző életkorú, kulturális hátterű és anyagi helyzetű közreműködők számára.

KÉZMŰVES JÁTSZÓTEREK – EGYÉNI KÉSZSÉGEK, KÖZÖSSÉGI TERVEZÉS

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APPENDIX

1. Initial experiment conducted by Hanson in the Botanical garden, Gothenburg, Sweden, June 2012
2. Joint field study activity in Dunga Beach, Kenya, Identification of research problem, September 2012
3. Second experiment conducted by Hanson in Vasaparken, Gothenburg, Sweden, April 2013
4. Third experiment in Dunga Beach, Kenya, conducted by Mwangi & Hanson, October, 2013
5. Co-written article by Mwangi & Hanson, October 2019 - March 2020

Appendix 1: The flow chart diagram of the co-craft process between Swedish and Kenyan actors. (copyright © 2013 Helena Hansson)

Appendix 2.a: Reflections from Sweden. “I think it is more hands on in the craft process. It is so much planning and researching in design”. Quote from one of the design student’s who during the workshop discovered how the crafts based design process was more intuitive and inclusive than the traditional design process.

Appendix 2.b: “I want to build my own play house!” A quote from the visitors, a young girl who discovered how the construction process became a community-building activity also among the adults.

Appendix 3.a: Reflections from Kenya. “I am a happy man because of this.” A quote from the craftsman in the village who reflects on the playground construction process. The young man discovered how the construction of the playground brought the community together.

Appendix 3.b: Images from the Environmental autobiography session in Dunga Beach, where the participants were drawing their childhood memories. (photos: Helena Hansson, 2014)

Appendix 4.a: Reflections from Kenya. “I am a happy man because of this.” A quote from the craftsman in the village who reflects on the playground construction process. The young man discovered how the construction of the playground brought the community together.

Appendix 4.b: “I want to build my own play house!” A quote from one of the visitors, a young girl who discovered how the crafts based design process was more intuitive and inclusive than the traditional design process.

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The young man discovered how the construction of the playground became a community-building activity also among the adults. (photos: Helena Hansson, 2014)