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Published in:
Craft Research

DOI:
[10.1386/crre_00064_1](https://doi.org/10.1386/crre_00064_1)

Published: 01/01/2022

Document Version
Publisher's PDF, also known as Version of record

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Please cite the original version:
Mäkelä, M., & Aktaş, B. M. (2022). In dialogue with the environment: The environment, creativity, materials and making. *Craft Research*, 13(1), 9-34. https://doi.org/10.1386/crre_00064_1

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Craft Research
Volume 13 Number 1

© 2022 the Author(s). Published by Intellect Ltd Article. English language. https://doi.org/10.1386/crre_00064_1

Received 25 February 2021; Accepted 22 November 2021

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In dialogue with the environment: The environment, creativity, materials and making

Keywords

craft
process
soil
clay
walking
artistic research
collaboration

Abstract

In a making process, a craftsperson starts a dialogue with the environment, tools and materials that are essential to their professional practice. During this materially and bodily entangled process, the act of making is thinking per se: the forming of the material emerges through the interaction with the material and is thus simultaneous with, and intrinsic to, the creative process itself. This article presents a practice-led case study of material thinking in the context of contemporary ceramics that one of the authors experienced during a research period in New Zealand. By utilizing walking along the changing landscapes as a creative method, as well as interacting with local practitioners, the craftsperson collects natural minerals

and follows the material's flow, letting it actively shape the creative events. The encounter with soil-based materials in their different forms and working with them in renewed ways reveal how the material's behaviours influence the craftsperson's thinking and making. This study shows that walking can facilitate the entanglement between the craftsperson's knowledge and newly discovered materials, generating emotional and dialogical relationship with the environment, including human collaborators.

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Encountering the material environment

For tens of thousands of years, people have used ochre to paint figures on cave walls. The natural colour ochre, which originates from iron-rich clay and sandstones, provides colours from yellow through red to brown (Fuley 2014: 75). Before Europeans arrived in New Zealand, it was inhabited solely by the Māori. Polynesians, ancestors of the Māori, brought with them the skill of using red ochre to New Zealand. Māori used the natural colour ochre as an important part of their culture: in tools, artefacts, buildings and rituals (2014: 77).

Maarit Mäkelä, a professional ceramicist and a researcher, spent three artistic research periods in New Zealand.¹ During these visits, she encountered soil-based local materials such as sand, stones and clay that were similar to the natural colours – like ochre – that the Māori people have been using. Utilizing her longitudinal experience in ceramics, she developed her creative process from the interplay between herself, the environment and local materials. By investigating the emergence of her dialogical crafting process, in this article, we² examine the relationship between the craftsperson, the environment, the material and the local practitioners that she collaborated with during her stays.

Mäkelä works in the field of creative practice periodically, but only during long working periods is she able to experiment with new working methods. This is also how she ended up using walking as part of her creative practice, since during her first stay in New Zealand she had the opportunity to work for nine months in unknown territories – when it comes to both working environment and methods. At the beginning of the stay, Mäkelä walked in the forests and on the beaches, trying to understand the landscape she had arrived in. One day, she visited a landscape that was formed out of black matters, such as sand and stones (Figure 1). The black sand was new to her as she had not

1. During the stays, she lived mainly on Waiheke Island, Auckland. The first stay took place 22 March–18 December 2015, the second 19 January–2 February 2017 and the third 29 December 2019–22 February 2020.
2. The two authors of this article are the following: professional ceramicist and researcher Maarit Mäkelä, who is also the author of the creative processes discussed in this article, and Bilge Merve Aktaş, designer and researcher, who joined in the writing process and discussions of this article since she share similar research interests.



Figure 1: Black sand and stones in Te Henga, Auckland, October 2014. Photograph: Maarit Mäkelä.

worked with such material before. However, as a longstanding ceramicist, she immediately recognized that the sand could be used for making ceramics. She collected some of it, and this was the beginning of the soil collection on which she based her first material experiments – and subsequently the entire creative process that then took place during her artistic research period.

While in New Zealand, walking emerged as an elemental part of Mäkelä's everyday life. Walking and the experiences emerging from it constituted her ceramics practice through which she began to explore the local surroundings and which resulted in the 'discoveries' and sample gatherings (see also Mäkelä 2016: 10) as well as developing materially related philosophical ideas and concepts (see also Mäkelä 2019). In a way, Mäkelä walked with the environment as a way of thinking-in-movement (Springgay and Truman 2018: 130). By writing about these experiences emerging from walking, sensuous descriptions of the bodily encounters with the environment also informed contact with the soil and the self (2018: 139).

Richard Long, one of the pioneering artists whose practice has revolved around walking, also connects creative thinking to walking (Fuchs 1986: 43). Starting from his famous piece *Line Made by Walking* (1967), everything he makes relates back to the earth: the stones, the wood, the clay, mud and water used are from the earth, and the form of each piece reflects and recalls similar forms encountered, discovered and employed while walking the surface of the earth (1986: 72). Walking can also be understood as a means to acquire intimate knowledge about a place – knowledge far deeper than one would arrive at by merely looking. In this way, walking can be comprehended as an intensification of perception (1986: 99).

Political scientist Jane Bennett (2010: 56) holds that a craftsperson – or anyone who has an intimate connection with things – encounters a creative materiality with initial tendencies and propensities that have a capacity to be combined in varied ways. She proposes that the direction in which the material takes the creator also depends on the other forces, affects or matters present in the process and with which they come into close contact (see also Mäkelä and Löytönen 2015: 180). With these ideas, Bennett challenges the perception of materials as inert substances and proposes that materials can significantly influence human thinking and actions. Philosopher Ingar Brink and psychologist Vasudevi Reddy (2019) develop this idea, claiming that the artisan's emotional and dialogical engagement with materials constitutes a primary means for making sense of the animate and inanimate, and the world at large.

Similarly, Mäkelä's dialogical engagement with her new surrounding initiated her creative process in unexpected ways, starting with material explorations of the found minerals. Artist and theorist Barbara Bolt (2007: 3) proposes that contemporary artists often prioritize their intentions and the meaning of making an artwork in a way that positions the materials and tools as instruments to actualize the artwork. Drawing on Heidegger (1977: 6), Bolt proposes (2007: 1, 2013: 5–6) that art is beyond only making and that there are several elements of responsibility that let art emerge through



Figure 2: Physically engaging with the local natural environment and following the flow of the clay, Waiheke Island, New Zealand, April 2015. Photograph: Pertti Mäkelä.

an acting ensemble between matter, tools, the situation, aspect, circumscribing bounds and the artist herself. Together, they bring something into appearance (Bolt 2007: 1). This is also noticeable in a craft process, where the craftsperson's inspirational source is fed by the material properties in a creative dialogue between the craftsperson, the material and their surrounding environment.

As philosopher Gilles Deleuze and psychoanalyst Felix Guattari (2004: 377) propose, cosmic forces energize various things with variable properties, so that they mix and melt with one another in the generation of materials. These forces are the continuous exterior factors that exist before interacting with them and that affect the formation of things (2004: 63). Accordingly, whenever we encounter matter, it is in movement, flux and variation, and thus the matter-flows can only be 'followed' (2004: 451). In Mäkelä's case, following the material and surroundings also shaped her creative process and the emergence of things. For her, walking 'with the landscape' revealed the soil-based materials in various forms.

Walking facilitated a creative encounter between Mäkelä and her environment. Through walking, she made sense of her new environment and understood its specific qualities as she experienced the soil-based materials (Figure 2). Anthropologist Tim Ingold (2010: 91) proposes that people bring together diverse materials and combine or redirect their flow in the anticipation of what might emerge. When following materials in this sense, humans in fact weave their own lines of becoming into the material flows comprising the world that we live (2010: 94–96). From a craftsperson's perspective and through observing the local surrounding and following the idea of material flow, Mäkelä could anticipate the transformations of rock to clay. Her knowledge and the environment led her to those locations where she could collect natural clay for her practice to work with directly, and also other elements, such as sand and stones, with which she could experiment further in her studio.

During walking, Mäkelä encountered the different stages of things in their flux. With the effect of rain and wind, the rocks were constantly in the process of changing their forms; as a result, she encountered these rocks as large pieces, small stones, sand and even as clay. The heavy waves washed the beach and moved the stones constantly, transforming the larger stones slowly into smaller ones and finally into sand. Similarly, rain and wind eroded the cliffs by transforming the rock into stones and the sand, finally, into clay.

Working with the material in its different forms is familiar to ceramicists since they work with different minerals, sand and clay and these are melted together in the process of firing. While making, the craftsperson juxtaposes these basic materials with the elements of fire, water and air to create new artefacts. In this way, the making becomes a shared process between humans and non-humans (Bolt 2007: 1; Malafouris 2008; Bennett 2010: 56, 60; Ingold 2013; Aktaş and Mäkelä 2019). In this article, we unfold the creative dialogue that emerged from the togetherness of the human and non-human, particularly through walking. We investigate the craft-making process that emerges from the relationship between craftsperson, environment and material, as well as other

human collaborators. We do this by inviting the reader to follow a creative process in ceramic craft practice, from the gathering of the material sources to the clay paintings, while reflecting over the dialogical relationship that the professional ceramicist developed with her environment through this process. The aim is to reveal the steps of the evolving process and how the artefacts emerge as a result of being attentive to and following the forces and flows of soil-based materials – that is clay, stones and sand.

A craftsperson's knowledge

The dialogical process of making develops from the personal experiences of the craftsperson as well as their engagements with the surroundings and the materials. In Mäkelä's process, her personal knowledge as a ceramicist and researcher also guided her while walking as she was able to identify natural materials that could be used for making ceramics.

Investigating the knowledge that is embedded in practice is a natural way to proceed for practitioner-researchers. During the last three decades, the exploration of knowledge partly through one's own creative practice has brought a new dimension to research in the creative fields. In addition to producing artefacts, practitioner-researchers have also begun to document, reflect and contextualize their related creative process as well as its outcomes (Mäkelä 2007; Pedgley 2007; Nimkulrat 2012). Through this endeavour, the spheres of knowledge, material thinking and experience that are fostered through creative work have become fundamentally entangled (Mäkelä and O'Riley 2012: 8) and have been embedded as elemental parts of this form of research (Mäkelä 2016: 1). The approach has been used and developed especially in the fields of art, craft and design, when practitioners have discussed their own creative processes and productions in an academic context (see also Niedderer 2012, 2013; Niedderer and Reilly 2010; Niedderer and Roworth-Stokes 2007).

Research approaches that rely fundamentally on the researchers' personal knowledge are at present being developed under a wide range of terms, such as practice-based, practice-led and artistic research. Central in every case is the practitioner-researcher who is not only the executor or facilitator of the creative process but also the one who reflects on the entire process (Hannula et al. 2005: 10). In the context of art and design, practitioner-researchers have experimented with different means to use their personal experiences and insights as part of their research as they believe that this situated and experiential position is the only way to extract knowledge in a practice-based field.

There are certain forms of knowledge that cannot be understood simply through observation, instead only by being engaged in practice per se (Pink 2011: 271–72). In such situations, documentation becomes a key asset in the process of analysing events and in reflecting over the creative process (Mäkelä and Nimkulrat 2018). Practitioner-researchers often emphasize the significance of their sensory experiences in knowledge construction, drawing on their situated experiences. While

practising, the practitioner-researcher reflects-in-action and through the documentation of the practice a reflection-on-action is made available (Schön 1983). Through documenting these reflections, the embedded knowledge is revealed.

The craft process described in this article was documented by photographing the environmental and material context in which the actual practice occurred, as well as the various steps in the evolving process and the outcomes. In addition to the visual documentation, frequent diary notes, sketches, material experiments and test pieces that were developed during the process provided stepping stones for the evolving process. Via these documents, Mäkelä was able to revisit the events retrospectively and recall the related actions, experiences, observations, emotions and narratives (see also Ings 2014: 676; Groth et al. 2015). The documentation made it possible to re-examine the various steps of the process comprehensively. Next, we will discuss how Mäkelä's situated experiences in the environment triggered the dialogue of crafting with the local soil material.

In dialogue with the material environment

After Mäkelä had started gathering her initial samples, she continued walking to explore the soil in the region. Ingold (2004: 330–31) believes that it is through our feet, in contact with the ground, that we are most fundamentally and continually 'in touch' with our surroundings. He understands walking itself to be a form of circumambulatory knowing and, as such, a highly intelligent activity. He believes that it is both the hands and feet – augmented by tools – that mediate the historical engagement of the human organism with the world around it (2004: 332). Similarly, the activity of walking provided material resources for Mäkelä's ceramics process. As discussed in greater detail later, the entire creative process had a multitude of diverse stages, some of them entailing careful planning and organization, others being tactile interaction with clay and carefully selected tools.

During her stay in Waiheke, with the help of a pestle and mortar, and with some added water, Mäkelä transformed the soil samples she had gathered into a liquid form. She also formed the clay and made small test pieces that were dipped in the liquids she had made (Figure 3). The test pieces were then fired at up to 1060°C, and the results presented the kinds of colours and surfaces emerged in the firing of these material samples (Figure 3). In the working diary, she describes the making of the test pieces as follows:

The first test pieces were made from the yellow clay found in my own street. The clay is fairly sandy. [...] I separated two different colours from the clay deposit: most of it was yellow clay, but some parts of it were more ochre from which I made the slip that had a bit more of an orange colour. I intend to use the slip as a colour in my paintings.

(Mäkelä, working diary 3 June 2015)



Figure 3: Fired test pieces made from local sand, stones, clays and seashells, July 2015. In the second and fourth line from the top, the clay bodies are made from the red and white clays collected from Te Matuku Bay, Waiheke Island (Codes T I–V and T I–VII). In the third line, the white clay body is from Hilary Kerrod's riverbank (Code H I–IV). On the right are the first experiments with forms. Photograph: Maarit Mäkelä.

Although beginning with intuitions, Mäkelä also expanded her walking as her interactions with the locals continued. In Waiheke, Mäkelä listened carefully to the stories that the locals told about the surrounding environment, especially stories related to the soil. This led her to specific places where local potters had gathered their clays in the 1970s and 1980s. One such a place was Te Matuku Bay (Figure 4), which used to provide a certain type of clay for potters in previous decades. However, as locals explained, as a result of commercialized and imported products over the recent decades, the bay has lost its significance for ceramics practitioners. To enrich her soil gatherings, Mäkelä visited locations where clay had previously been found, collecting more samples there.

When handling the clay from Te Matuku Bay, she could sense that it was smooth, and she was ready to rely on the local knowledge that the clay was suitable for making ceramics. This was proven by test-firing pieces of clay as it could be seen that the structure of the clay remained even after firing. She also formed tiny plates out of the clay to see how the clay responded to hand building (Figure 3). The result was good and she was ready to proceed with her intentions, to make clay slabs and use them as canvases to be painted on. By adding water to the same clay, she also made liquid slips. The liquids were used when she proceeded to the next stage of the process and started to paint images on clay.

When starting the first painting, she felt that the structure of the clay was a bit tight to be used as a clay canvas with the clay slips, and she hence anticipated that the slab might crack when the wet slips were added on the top of the clay. On the other hand, she wanted to test the structural limits of the clay, how it would respond to the demanding act of adding liquid on the semi-dry clay surface in the form of raw slip painting.

Ingold (2013: 31) describes the act of making as an event in which the craftsperson couples their own movements and gestures with the becoming of their materials. In doing this, the craftsperson joins and follows the forces and flows that bring the work to fruition. When describing the dialogue between the maker and the material, Ingold (2013: 115) parallels it to a question and answer session, in which every gesture aims to elicit a response from the material that will help lead the craftsperson towards a goal. He reminds us that the form of the work is not known beforehand and forced upon the material, rather it is revealed as making continues. This accurately describes what happened when Mäkelä was painting with her soil-based materials.

The first attempt at painting with the clay slips indeed ended up cracking the clay slab canvases as Mäkelä had anticipated; this was due to the vast difference in humidity of the slip and clay. The cracking was overcome by modifying the composition of the clay by adding paper pulp and sand to it. The paper fibre strengthened the structure of the clay slabs in the raw stage, when they were still unfired. The pulp safely increased the amount of water in the clay, and, in this way, the structures of the clay slips and clay canvas became more homogeneous. This enabled her to paint with the wet clay slip on the semi-dry clay canvas slabs without causing the clay to crack.



*Figure 4: Collecting clay in Te Matuku Bay together with the owner of the land and the local art historian, Waiheke Island, June 2015.
Photograph: Pertti Mäkelä.*

Because of the plastic quality of the clay, it was possible to manipulate the painted surface while making the image by drawing lines in the soft material. Mäkelä used a stick with which she roughly carved the image on the top of the clay slab. After that, she started to create the painting by adding different slips on top of the sketch. She worked in layers and the image evolved on the top of the slab in a dialogue with the materials and colours in the layers that lie beneath (see also Kontturi 2015: 6). The layers blended with each other, creating multiple surfaces that reacted and interplayed with each other.

As she added soft clay based slips to the surface, they found their way inside the carved lines and then ran along them. In order to achieve this, she had to lift the entire slab canvas, together with its wooden board support (Figure 5), onto her lap and cradle the emerging painting. In this way, she was able to lead the wet and running slips gently and carefully in the desired direction. She considers this particular part of the process very intimate, a kind of caring act that was directed towards the material. For the maker, this is an aesthetic experience in itself (see also Falin 2014). This is also an elemental part of the marking and drawing process that engraved the clay, thus giving birth to the emerging clay paintings.

Thematically, the clay paintings revolved around femininity, which has been Mäkelä's topic now for three decades. When painting, she relies upon inspirational sources that are often previously existing collections of female images – mostly culturally embedded pictures of western women. The novel elements of the creative practice that evolved in New Zealand were walking and material experimentation, but the selection of themes relied on her old practice. The new inspirational sources were found via visits to the local art museums. During the visit to Auckland Art Gallery Toi o Tāmaki, she also saw a graphic work by the German artist Käthe Kollwitz (1867–1945). The self-portrait led her to seek to learn more about the artist in the library, and in a book she also found photographs of Kollwitz that were later used as an inspirational source for the clay paintings (Figures 5 and 9).

Cognitive archaeologist Lambros Malafouris describes pottery as a dance between two partners, which also aptly depicts what happens between the ceramicist and the clay material. When discussing the interaction of a potter and clay in the context of throwing clay on a wheel, Malafouris (2008: 20) proposes that potters know more than they can say or explain, and usually their hands have reasons for what they do of which their mind is not aware. Malafouris thus proposes that human thinking is shaped by engaging with materials and therefore human-and-material togetherness cannot be disentangled.

In this way, the ceramicist and the environment display a dynamic coupling between mind and matter that looks like a dance (Malafouris 2008: 25). Malafouris reminds us that although the dance is between two equal partners, this does not imply that there are no important differences between the craftsperson and the clay. Nor does it mean that one of the two partners is not at times leading the dance. On the contrary, he believes that because material engagement entails a dynamic tension,



Figure 5: *Painting Earth-woman on clay with sand, crushed stone minerals and clay slips, inspired by a photograph from Käthe Kollwitz, October 2015. Photograph: Maarit Mäkelä.*

the leading position varies during the process (2008: 34). When it comes to crafting, the notion of dialogue resembles Malafouris's notion of dance: similar to dancing, a dialogue also requires paying attention to where the partner takes the conversation. While having a dialogue, the participating parties take their turns to further the process. To follow this process that unfolds itself during engagement, the craftsperson needs to be attentive to the changes and transformations that are happening in the entanglement with the material and the environment. In a way, the craftsperson needs to learn how to listen to the voice of the material to have a productive and fruitful dialogue with it.

In dialogue with human collaborators

In the studio, Mäkelä worked alone with her tools and materials that the local environment provided her. In addition to having a dialogue with the specific local materials and material environment, Mäkelä also collaborated with local practitioners with various forms of expertise. During the year, she collaborated with ceramicists, artists, art historians, gallerists and landowners. Usually, the collaboration began with a shared interest in ceramics, art or the local environment – especially soil. Some of the contacts were more-or-less temporary encounters, although a few of them developed into friendship.

One of the first encounters was with the local art historian Jackie O'Brien, whose interest was directed towards local ceramics. She knew the recent history of Waiheke ceramics well: the makers, their production as well as the local materials that the ceramicists had sourced from the island. She was also the first who shared with Mäkelä the heritage of Te Matuku Bay as a place where the local ceramicists had earlier sourced their clay. Jackie contacted the owner of the land and got him involved in the walk with the aim of finding the place where the clay had been collected earlier (Figure 4). She herself was making experimental art from unfired clay and was therefore also interested in the clay-gathering practice. The walk ended at a spot where the group was able to collect red-coloured clay.

Another important community was the Waiheke Pottery Society, whose members shared with Mäkelä a passion for ceramics making and local materials. The community worked under the guidance of Hilary Kerrod, a self-taught ceramicist who mainly worked with local clays. Kerrod had sourced her white clay decades ago on the riverbank near her studio. Together with Mäkelä, she located the place again and collected some clay for making test pieces (Figure 3). The community also provided kilns where Mäkelä was able to fire her pieces. The year resulted in an exhibition showcasing the many and varied steps of the performed creative process, including small earth samples, images from the place where these materials were gathered, tools and test pieces, as well as paintings on paper and clay (see also Mäkelä 2019: 177). This was the first time that Mäkelä had put on an exhibition where the focus was not on the artefacts but instead on an evolving creative process.³

3. The exhibition *Earth-Dialogue* was displayed at the St Paul St Gallery, Auckland, New Zealand 27 November–11 December 2015. See also <https://www.maaritmakela.com/works/> (accessed 11 August 2020).

4. In January 2017, AUT (Auckland University of Technology) University invited Mäkelä to examine Derek Ventling's doctoral thesis 'Illuminitiva: The resonance of the unseen', a practice-led research that was realized in the form of three installations and a related written exegesis. On this occasion, Mäkelä stayed in Waiheke for two weeks.
5. The limited version of the *Earth-Dialogue* exhibition was on display in Waiheke Community Art Gallery, New Zealand 24 January–1 March 2020. See also <https://www.maaritmakela.com/activity/> (accessed 12 August 2020).

After the exhibition, Mäkelä returned to Finland. She travelled to Waiheke for a second time after one year as a scholar,⁴ when the dialogue with the ceramicists around soil issues unexpectedly continued. During the first evening in Waiheke, she participated in the opening event at the Waiheke Community Art Gallery, where she also met two ceramicists, Carolyn Becroft and Belinda Fabris, whom she had learned to know via the Waiheke Pottery Society. They were still excited about the walking and gathering practice, and before the evening ended, they had set a date to visit an old Manganese mine. In the diary, Mäkelä writes about the expedition as follows:

The day before yesterday I visited a Manganese mine with Belinda and Carolyn. I heard about the mine the last time I was in Waiheke, and even saw the signpost, but never went to explore it. [...] Carolyn had made some preliminary study about the site beforehand: 'Awaawaroa [Māori language, in English "Long Valley"] is a quiet forgotten rural valley now. At the turn of the 20th century, this was a busy community, the site of New Zealand's largest Manganese mine. [...] From 1873, over 1000 tons were extracted and exported'.

(Mäkelä, working diary 24 January 2017)

While exploring the mine, the team also collected soil samples. The samples were treated further in Carolyn's studio (Figure 6) by following the procedures that Mäkelä had applied to her creative practice during her previous visit. This included practices typical to ceramicists, such as grinding, mixing with water and dipping raw test pieces in the resulting liquids. The experiments did not develop further due to the short visit, but the collaboration continued two years later when Mäkelä returned to the island again. She valued the collaboration with locals and therefore wanted to share the results from the 2015 creative process with the islanders by also exhibiting them in Waiheke.⁵

The third trip was seven weeks long, and while in Waiheke Mäkelä had also run into Jackie – the first local with whom she had made the first sample collections in Waiheke. Right away, Jackie told her that her dog had recently found white clay under the sand at a nearby beach and that she wanted to show the place to Mäkelä. The result of the trip was the collection of white and light yellow clay, as well as different combinations of these hues (Figure 7). The white clay was used when Mäkelä began to work with her new piece in Carolyn's studio. In her diary, she describes the beginning of the working process as follows:

I started to work by going through the box of dry materials that I had left in Carolyn's workspace when I was unpacking my own studio at the end of 2015. The box contained, for example, dry clay and sand from Matakana. [...] It is typical for me to work with the materials that are naturally available. The restricted materials form a kind of frame and set edges for the work. In the box I also found a small bag of red ochre that I had gathered from Tasmania,



Figure 6: Exploring the samples collected from the Manganese mine in Carolyn's studio, January 2017. Photograph: Maarit Mäkelä.



Figure 7: Gathering clay from Kennedy Point, February 2020. Photograph: Maarit Mäkelä.

Clifton Beach. In New Zealand, I have never encountered such a red ochre. I grind the colour with a pestle and mortar, and treat the inside of the pot with it. In Māori culture, red and black have a specific role, and these are the colours I am going to use in my evolving piece.

(Mäkelä, working diary 29 January 2020)

During the two latter stays in New Zealand, time was limited, and Mäkelä mainly followed the working methods she had discovered in New Zealand during the first stay. During the third stay, she also started to work with her favourite hand-building method, coiling. In this slow craft method, thin clay coils are joined together rhythmically to give body to the evolving form. Mäkelä uses the practice for settling down, for reconnecting with the tacit realm that is enabled in ceramics making. She uses the evolving big forms as canvases for her paintings. During the third stay, she made just one piece – a painted pot with an image of a young female Māori (Figure 8).

Responding to the flow of materials

In the presented case, the creative process was initiated in contact with the environment by finding the local materials and the craftsperson's subsequent iterative experiments with them. The environment played the key role in the dialogue of crafting, as the local soil – that is sand, stones and clay – was an elemental driver that resulted in creative ideas. Through walking, the environment was encountered and engaged with, and via this process the soil became raw material for the evolving creative process. The soil gatherings provided unpredicted experiences, and this forced the craftsperson to listen to the voice of the material to be able to work with it.

Mäkelä's work with soils indicates that the craftsperson's knowledge facilitated new discoveries. By skilfully observing the environment and the soil's flow, the craftsperson was able to extend her experience beyond the studio and let herself join in with the material's natural flow. Starting the creative process outside of the studio provided new ways of being with the material and accordingly brought new ways of coupling with the environment, the material and even the practice (see also Aktaş 2019: 17). The sample gathering trips were considered exciting and therefore it was natural that the locals were eager to participate in them.

Relying on her experiential knowledge of ceramic materials in general, she was able to recognize from the local environment those soil-based materials that she could work with. While gathering samples and working, Mäkelä was also expanding her skills and knowledge by learning from the materials. Ingold states that 'the experienced practitioner's knowledge of the properties of materials, like that of an alchemist, is not simply projected onto them but grows out of the lifetime of intimate gestural and sensory engagement in a particular craft or trade' (2013: 29). Thus, walking provided such a multi-sensorial engagement with the material in its own environment. Collaboration with



Figure 8: Unfired work in Carolyn's studio. Painting with Te Henga black sand, Tasman red stone, Long Bay yellow clay, Te Matuku red clay and Kennedy Point white clay on Matakana clay, February 2020. Photograph: Maarit Mäkelä.

locals added a new layer to this experience as it enabled the sharing of the heritage related to specific places.

Ingold (2013: 31) conceives of materials as ineffable in the sense that they cannot be pinned down in terms of established concepts or categories. He understands any material as a riddle, whose answer can be described only through observation and engagement. The meaning of the riddle is crucial as it gives the material a voice and allows it to tell its own story. The craftsperson has to listen to the material and to discover its voice based on the clues it offers. Then, the task of the practitioner is to correspond with the material. In this sense, crafting becomes a process of correspondence, an act of drawing out or bringing forth of potentials immanent in a world of becoming (2013).

In our example, the craftsperson followed the flow of the soil by walking in the natural environment: she followed the rivers, walked through rainforest and crossed the hills. During her walks, she encountered clay, sand and stones in their local surroundings while gathering samples. Accordingly, the environment and local materials initiated and significantly affected the creative process. After the walks, she continued working with her soil collections in the studio and experimented with the materials to better understand them.

In this way of working, Mäkelä did not produce a preconceived idea but instead generated her ideas as she continued working with soil-based matters. Ingold (2010: 91) proposes that the forms of things arise within fields of force and flows of material. From this perspective 'the role of the artisan, as well as any skilled practitioner, is to join with and follow the forces and flows of material that bring the form of the work into being' (2010: 97). In Mäkelä's case, the works she made in New Zealand also appeared through the process. The clay paintings were results of the process, where the craftsperson gathered soil-based materials from natural environment and experimented with how they might contribute to ceramics making. In the final pieces, these materials were used both as a base of the paintings and as colours with which to paint (Figures 8 and 9).

After the experiences in New Zealand, the focus of Mäkelä's crafting shifted to the process rather than the creation of a final artefact. Through walking and crafting, she became aware of her environment and her engagement with it in a new and fundamental way. This also changed her as a practitioner, as a thinking and making human being. The aim of making new, singular artefacts diminished, and her attention was directed more towards a dialogical and appreciative relationship with the environment. The scope of her entire practice shifted towards environmental issues and material engagement on a larger scale.

In Mäkelä's case, the idea that materials can significantly make a change in human thinking and actions was manifested via her following projects. Rather than aiming at a certain, pre-determined aesthetic outcome, the focus shifted towards evolving processes that involve several elements and authors. Since that time, she has been working with the complex processes around the topic, where the natural and cultural dimensions of life entangle, interact and interrupt each other in diverse



Figure 9: Fired painting Earth-woman. Painted with Te Henga black sand, Tasman red stone, Long Bay white and yellow clay, Te Matuku clay and Cory Road clay on Matakana clay, December 2015, 37 cm × 26 cm. Photograph: Samuel Hartnett.

ways. The focus of her projects and works remain in artistic research in the sense that the aim is to study the complex relationships around human and nature via crafting in the context of soil. The project 'Traces from the Anthropocene: Working with Soil' that was inspired her experiences in New Zealand took place in the context of the Venice Biennale, Italy, in 2019 (Latva-Somppi and Mäkelä 2020) and was displayed in Design Museum Helsinki, Finland in the exhibition *Soil Matters*.

Conclusions

Following the above discussion, we believe that to be able to successfully collaborate with a material, the craftsperson has to throw themselves into a process of material engagement; that is, they need to begin a profound dialogue with the environment, tools and materials that are essential for their site-specific professional practice.

In this article, we have discussed the dialogue between the craftsperson, the material and the environment and how they are integrally entangled in the creative process. The entangled process proceeds towards the outcome via thinking and making. This implies that material formation does not follow, and is not subsequent to, ideation as a separate phase of giving form to the emergent idea. Instead, the materiality, which is embedded in places, environments and organic matter, is simultaneous with and intrinsic to the creative process itself as it resists, imposes, affects and affords opportunities, challenges and constraints on the ideas and possible ways of working (see also Mäkelä and Löytönen 2017: 253; Gherardi and Perrotta 2013: 240; Kontturi 2018: 197).

Through this case study, we propose that in the creative process with materials, it is not only the craftsperson who has an active role but also the material. This dialogical process is a relational and emergent product of material engagement (see also Malafouris 2008: 34). Crafting emerges in an entangled process between the person, material and environment, allowing the material engagement to guide the creative process towards the outcome.

In a broader sense, the impact of the practice of walking in relation to the craft processes can also be reflected on beyond the act of crafting. We can shift our relationship with the environment by changing the way we perceive it when walking. Using walking as a method of inquiry rather than merely changing the location can bring new sensibilities in relation to the environment of walking. When walking itself is used to gain new experiences, the environment becomes a rich resource for building new relationships with the world – including both human and non-human collaborators.

Acknowledgements

This work was supported by the Academy of Finland (grant numbers 266125 and 331778). We thank Jackie O'Brien, Hilary Kerrod, Carolyn Becroft and Belinda Fabris who live on Waiheke Island and who kindly agreed to be present in the study.

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Suggested citation

Mäkelä, Maarit and Aktaş, Bilge Merve (2022), 'In dialogue with the environment: The environment, creativity, materials and making', *Craft Research*, 13:1, pp. 9–34, https://doi.org/10.1386/crre_00064_1

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