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Essay

Mapping the Anthropocene: Atelier NL, a Case Study of Place-Based Material Craft Practices

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Abstract: This paper argues that *mapping* as a methodology can support localised production, as exemplified in the case study of the design studio Atelier NL which marries contemporary design sensibilities with traditional glass and ceramics craft-making techniques. The paper puts forward the argument that by paying attention to local ecosystem services through mapping, place-based design solutions can be developed. Furthermore, the paper argues that the methodologies deployed by Atelier NL borrow from contemporary art creative mapping practices. This case study uses the framework of the Anthropocene to situate these mapping practices identified within the case study and contextualises these within 20th-century environmental arts practices, and those of the environmental art pioneers the Harrisons in particular. Finally, the paper argues that these mapping practices are responding to the conditions of the Anthropocene which increasingly makes clear that culture and nature are enmeshed, an insight that 19th-century town planner Patrick Geddes argued for more than a century ago.

Keywords: design; craft; glass; ceramics; Anthropocene; mapping; cultural ecosystem services; Patrick Geddes; Harrisons; creative mapping

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1. Introduction

Atelier NL is a design studio founded in 2006 by Nadine Sterk and Lonny van Ryswyck upon graduation from the Design Academy in Eindhoven in the Netherlands, where they both studied. Atelier NL design contemporary glass and ceramics products and have developed a noteworthy working method to find out about and engage with local ecosystems in order to produce functional objects that speak of and come from specific geographical locations. Although craft makers and designers increasingly work with circular and regenerative materials which can be re-grown and replenished, such as timber or natural fibres, 'man-made' materials have often lost their origin story. Glass and ceramics are made from natural source materials but are 'transformed' by processes into new materials which can no longer be returned to their origin state. The case study explored in this paper identifies means by which these materials can be re-connected with the ecosystems from which they came, now obscured by specialised industrialisation processes (making sheet glass for example) and highly globalised supply chains where the source of materials is often not known. Through *mapping*, a rich diversity of materials is revealed which speak of their origin story. This paper situates their methodology in the framework of the Anthropocene which increasingly makes clear that culture and nature are enmeshed, an insight that 19th-century town planner Patrick Geddes argued for more than a century ago. The design practices of Atelier NL are further contextualised within the 20th-century environmental arts practice of the environmental art pioneers the Harrisons, with whom they share mapping as a methodology. Helen Mayer (1927–2018) and Newton Harrison (1932–2022) were at the forefront of the environmental art movement and introduced the concept of using ecology to modify a landscape's functionality rather than its aesthetics, by working closely with biologists, ecologists, architects and urban planners as well as other

artists throughout their nearly fifty years of practice, to develop ideas that would support biodiversity. Their interdisciplinary approach arguably anticipated the conditions of the Anthropocene.

The U.N. Sustainable Development Goals (SDGs) are the global governance blueprint 'to achieve a better and more sustainable future for all' and take a holistic approach to human development which was ratified in 2015 by 193 sovereign states. They address the global challenges facing humanity, including those related to poverty, inequality, climate change, environmental degradation, peace, and justice. The seventeen goals are all interconnected, and the U.N. has set a target to achieve them all by 2030 (U.N. 2015). The SDGs are used in this article and the overall Special Issue in which it appears as a framing device to evaluate the sustainable design practices of Atelier NL.

The case study approach was chosen as the specific, concrete details found In case studies offer small questions that often lead to big answers. By focussing on values and power explored through detailed case studies, the research undertaken gains relevance to ordinary citizens and policymakers (Flyvbjerg 2001). It is with this understanding of case studies, as exemplified in the social sciences, that the method of case studies has been adopted for this study. Furthermore, case studies have a transferability which can be applied to other cases and sectors outside of the creative economy (Coghlan and Brydon-Miller 2014). This case study used desk research, with textual and visual analysis of publicly available content.

2. The Anthropocene: A Case for a Return to Sustainable Living

The Anthropocene is a concept from the Earth Sciences (Crutzen and Stoermer 2000a, 2000b) which posits that the impact of human activity on the Earth's systems can be clearly observed and measured. The Anthropocene provides a framework for the contemporary context of climate change, ecological decline, biodiversity loss, and ecosystem collapse. Scientific consensus has, unusually, unanimously concluded that the climate is changing and that this is 'unequivocal' due to human activities affecting every part of the globe at an unprecedented scale (IPCC 2021). Critically, the impact of human activity on the Earth has not only made significant changes to the planet Earth's systems, as evidenced by climatic changes and supported by geological findings such as sediments and ice but also by a steep decline in biodiversity (58%), in the last four decades, leading scientists to call it *the Sixth Extinction* (Kolbert 2014). The concept of growth as evidenced in *The Great Acceleration* (Steffen et al. 2015) is thus unsustainable for both planet and people, as had been predicted in the *Limits to Growth* (Meadows et al. 1972, 1992, 2004) reports which became pivotal in the sustainability movement. Despite their profound warnings, the reports also contained a message of hope outlining that if humankind could create a society which imposes limits on growth and the production of material goods, then humankind and its dependent ecosystems of non-humans could achieve a state of equilibrium and live indefinitely on Earth in a carefully managed balance. The Anthropocene thus provides a shorthand to describe the planetwide condition of man-made environmental degradation and climate change. but also the human capacity to affect change. Furthermore, the Anthropocene has made clear that human ecosystems (economic, social, and political, for example) are irrevocably enmeshed with ecological ecosystems.

The Anthropocene has arguably heralded the end of Modernity and its associated focus on progress. Modernity emerged from the Renaissance as the Age of Reason. The pursuit of scientific knowledge driven by the Enlightenment values of the 1^{7t}h and 1^{8t}h centuries and concomitant 'improvement' of the social and natural world heralded the Industrial Revolution. Whilst Modernity led to a general improvement of (some) human ecosystems, this came at the detriment of many other species and the decline in the quality of the Earth's ecosystems. The Anthropocene has shifted the lens back onto alternatives offered by traditional, indigenous, or artisanal approaches, which often preceded industrialization (Haraway 2015). The Great Acceleration, the dramatic and exponential surge in population growth, economic output, greenhouse gas emissions, and natural resource usage since the

mid-20th century, is not only unsustainable for both planet and people (Steffen et al. 2015), but has accelerated the demise of traditional ways of knowing and doing. The demise of traditional knowledge and its concomitant social values is neither new nor provocative, as these reflections have been made since the advent of mass production. The 19th-century British industrial designer, social activist and proponent of the Arts and Craft Movement, William Morris (1834–1896), perceptively noted in 1884 that the globalised market economy affected craftworkers adversely globally (Morris 1888). Thus, Modernity and its process of globalisation had profound implications not only for the loss of traditional knowledge and practices but also for the social values they embodied. For the anthropologist Anna Tsing, the Anthropocene makes it possible to realise that Modernity itself is a barrier to living fuller lives:

> *'Progress is a forward march, drawing other kinds of time into rhythms. Without that driving beat, we might notice other temporal patterns. Each living thing remakes the world through seasonal pulses of growth, lifetime reproductive patterns, and geographies of expansion. [ ] Instead, agnostic about where we are going, we might look for what has been ignored because it never fit the time line of progress'*. (Tsing 2015, p. 21)

Due to the inexorable march of progress, much knowledge has been lost in the intervening decades, but the concept of the Anthropocene has opened up discourses that place renewed value on these old practices (Watson 2020) in a contemporary context as Atelier NL explore in their work.

2.1. Patrick Geddes: Think Global, Act Local

The 19th-century Scottish biologist, sociologist and town planner Patrick Geddes (1854–1932) was a multi-disciplinary writer and thinker whose urban planning principles were imbued by a prescient understanding of the entanglement of human culture in natural ecosystems. Geddes saw both environmental and cultural thinking as interdependent, a concept which predated the notion of the Anthropocene by nearly a century. Although the origin of the actual phrase 'think global, act local' itself is not attributed to Geddes directly, and remains contested (Macdonald in: Macdonald 2004), its ethos is implicit in the multi-layered, nuanced understanding of space (Massey 2005) and the more-than-human considerations of the Anthropocene, and serves as a guiding principle in this case study. Cartographer Denis Cosgrove argued that Geddes' influence on re-imagining the world towards a 'universal global utopia' in comparison to the 'cold materialism of the nineteenth century' was profound in exploring ways in which science and religion could be brought together, as well as the role of educating a contemporary public 'to see a global coherence across history and geography, hierarchically structured from the immediate locality to the whole earth' (Cosgrove 2001, p. 231). Geddes understood the role of vision in this. Geddes argued that once the principles of coherence were understood, the goals of universal human progress could be realised through planning space and society. The need for a holistic approach to both human and non-human life, as outlined at the start of the environmental movement with *Small is Beautiful* (Schumacher 1973), in which social and aesthetic profitability are of equal importance as economic, has been recognised in the Anthropocene (Haraway 2008, 2015; Morton 2013). It advocates a move away from the universal to the local, as embodied in the holistic approach outlined a century ago by Geddes.

2.2. Cultural Ecosystem Services

Such linking of the local and the global, as argued for by Geddes, can be found in the Ecosystems Services (ES) approach derived from the UN Millennium goals, which finally acknowledges and supports a holistic policy approach, which nuances natural capital in terms of economic, ecological, social and cultural wellbeing (UK National Ecosystem Assessment 2011). The Ecosystem Services framework posits that four ES (provisioning, regulating, supporting, and cultural ecosystem services) are critical to society. Provisioning services include food and water. Regulating services include the climate. Supporting

services include nutrient cycles and oxygen production. Finally, cultural services include recreational and spiritual benefits. Cultural Ecosystem Services (CES) relate to the cultural practices which provide spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences (Millennium Ecosystem Assessment 2005; Chan et al. 2011; Coates 2014a, 2014b; Church et al. 2014). Nature and culture are conceptualised here as intrinsically enmeshed. CES considers the interactions between environmental spaces and cultural practices as expressed through art, literature and the media. Tangible 'natural' cultural assets can be mapped, such as footpaths, parks, and places of outstanding beauty. Yet, the intangible cultural assets manifest themselves in the art practices of the region; in the songs and poetry, and the visual arts and crafts, which are in turn influenced by the traditional land-use practices of agriculture, fishing, and forestry which shape the landscape. Intangible culture is broader than just the arts: it manifests in language, festivals, traditions, knitting groups, dress codes, and so on. The craft practices of Atelier NL are presented in the case study here as exemplars of Cultural Ecosystem Services.

The Anthropocene has thus provided a scaffold, particularly in the arts and humanities, within which to comprehend the clear interactions, relations and consequences of human activity on their environment. Old forms of representation are experiencing drastic new pressures and are being tasked with daunting new responsibilities. The Anthropocene, a hyperobject (Morton 2013) so vast and complex across time and space, requires a new ontological understanding. Visual theorist Nicholas Mirzoeff observed (Mirzoeff 2014) that, like Morton's hyperobjects, the Anthropocene cannot be observed or seen and as such he argued that the Anthropocene can only be visualised—imagined: 'The last moment of human agency comes in the rendering of this phenomenon into an aesthetic, comprising both the ancient concept of bodily perception and the modern sense of the beautiful' (Mirzoeff 2014, p. 213). This has found some traction in the Environmental Arts movement.

2.3. The Harrisons

The environmental arts movement is frequently associated with North American art practices. Ecoart, or the new earthwork, which is 'currently at the leading edge of sculptural practice', means art for the future of humanity and the planet; it means a new approach to aesthetics and the role of art in our lives (Moyer and Harper 2011). In the last five decades Environmental Art has focused, not on the depiction of nature itself, but on making visible the relational and the systematic, 'often motivated by our extraction of value from nature without regard to health or sustainability' (Fremantle 2018). Helen Mayer (1927–2018) and Newton Harrison (1932–2022) were an American husband-and-wife artist team simply known as the Harrisons. The Harrisons were educated in and represented Modern Art, which emerged in the late 19th century and dominated most of the 20th century, with experimentation with new ways of seeing and new materials. The Harrisons' practice can perhaps be seen as a 'bridge' between Modernity and the emergence of the Anthropocene, as a clear consequence of the former. Although neither were trained in the field of ecology or ecological design, following the first Earth Day in 1970 they resolved to 'only do work which benefited the ecosystem' (Spirn 2016, p. 434). In a practice that spanned more than five decades, the Harrisons defined a unique working practice, which is deeply in tune with local ecologies and yet able to project and engage with governmental policy at the international level and on a planetary scale. The updated report (Meadows et al. 1992, 2004) has been referenced specifically by the Harrisons, pioneers of the environmental arts movement, as an inspiration for their ecological art practice. The Environmental Arts movement emerged from the Land Art movement of the 1960s, which art critic Brian Wallis (Kastner and Wallis 1998) noted coincided with the fundamental re-ordering of critical and representational practices of social movements.

Research played a critical role in their work, and they developed methods which they deployed in every project. This modus operandi was refined and articulated in five guiding principles (Spirn 2016, pp. 435–37):

Fieldwork: 'it's all about seeing'

Dialogue: 'talking things over'

Mapping: 'we use the map to meditate'

Libraries and Archives: 'a penchant for research'

A Guiding Metaphor

The Harrisons started with fieldwork: observing, not as detached observers, but 'seeing' what is there and listening and leaning into the stories a place might tell. Collaboration was integral to their working process, and dialogue critical. The importance of words, in addition to images, formed a key part of their work and was a recurring motif in other works. The Harrisons observed that, for them, writing 'is talking things over with a pencil' (Spirn 2016, p. 435). However, the dialogue extends to the place itself, and its communities. The Harrisons considered this approach 'the eye of the stranger', as the role of the stranger was 'to listen to people who care about a place, who have something to say, who have knowledge'. The 'eye of the stranger' enabled them to come from a different perspective whilst asking questions and learning from others (interview Anne Douglas and Mark Hope: 24 September 2018)[1]. Mapping too was a critical part of their art practice. They considered mapping as a means to 'meditate': to pause, reflect, and obtain a sense of the place. It is this method of mapping, as both an action and a physical object and active agent, which is referred to throughout this paper. Their work also relies on extensive and meticulous research using archives and libraries. Finally, the Harrisons searched for a fitting metaphor, a play of language, to help communities, participants and other stakeholders in their projects see things afresh and transform what they think is possible, and thus bring forth a new state of mind.

2.4. Mapping in Art

Mapping in art has emerged as a distinctive critical tool for visual artists, as evidenced by the burgeoning cartographic work produced in the last five decades, and more significantly in the last fifteen years. From the dérive of the 1950s, the site-specific Land Art of the 1960s and 70s, to the personal identity politics of the 1980s and 90s, a more global, sometimes utopian, activism addressing environmental and political concerns emerged in creative cartographies at the beginning of the 21st century. There has been a distinct move away from the map as a trope, from cutting and reassembling (e.g., Layla Curtis, Susan Stockwell, Georgia Russell, Claire Brewster), to walking (Chris Drury, Hamish Fulton), making (Alighiero Boetti, Langlands and Bell, Joyce Kozloff, Ruth Watson, Stephen Walter), and writing (Richard Long) the map, and towards mapping as a process, with a concomitant focus on action and activism (Eve Mosher, Trevor Paglen) (Watson 2009; Thompson and Independent Curators International 2008; Panneels 2018, 2019). The recent move away from the map towards mapping in art as a methodology has coincided with a move towards socially engaged art practices. Artistic practices have since the 1960s appropriated social forms as a means of bringing art closer to everyday life (Bishop 2006, 2012), as argued for by Joseph Beuys' notion of Social Sculpture (Social Sculpture Research Unit 2012), and the environmental art practices which are its contemporary heritage (Weintraub 2012).

"I map, therefore I am" wrote Harmon, as a means of defining the modus operandi of the artists described in her books (Harmon 2004, 2009) who use maps and mapping methodologies to make sense of the world, a pun on the famous Cogito Ergo Sum proposition by René Descartes (Harmon 2004, p. 11). The binary Cartesian worldview, with the separation of mind and matter and between the observer and the observed, has been the enduring trait of the Enlightenment and Modernity, where vision—observation—became associated with reason and the mind, and began to be dismantled in the early 20th century. Maps of the world will have to be re-drawn in the Anthropocene, as global warming will raise sea levels, and alter coastlines and river deltas across the world. The world will be drastically reshaped. We will need to re-imagine our local places and spaces, and with that comes a need to know and understand what local ecosystems are, what they provide, and how they can be supported to thrive to sustain both human and non-human life sustainably. Creative

practices, such as art, craft and design, and others, have a role to play in this re-imagining (Weintraub 2012). Julie Doyle argued that artists face a difficult task: 'to what extent should they seek to mobilise behavioural change through the communication of a message: or provide us with imaginative spaces through which to reflect upon our role of humans in a climatically changing world' (Reiss 2019, p. 47). The mapping of Ecosystems Services thus requires a holistic approach with a longitudinal view, and one in which cultural ecosystems should play an integral role. Creative and participatory mapping have been highlighted as being a suitable potential methodology to identify and quantify CES, to capture the character and complexity of environmental settings, and critically, to provide 'a distinctive indicator of CES value' (Coates 2014a, p. 39). The practice of deep mapping as an 'essaying of place' in particular was noted as a means of enabling solutions to develop relevant to their own ecology (Biggs 2010a, 2010b). Cultural Ecosystems Services is thus a framework that outlines the enmeshment of culture and nature and demonstrates the non-material benefits of nature. The mapping practices considered here are furthermore understood as examples of a new ontopolitics of the Anthropocene (Chandler 2018), of complexity and interconnection, in contrast to the more dominant assumptions of mapping in Modernity which belie their military origins.

This paper specifically looks at CES through the lens of craft practices of ceramics and glass making as exemplified through the case study of Atelier NL's design practice of working with locally sourced clay and sands.

3. Atelier NL: A Case Study in Mapping

3.1. Mapping Clay

"Think Global, dig local" is the slogan used by Atelier NL for their work digging up local clay and sand to create local ceramics and glass (see: https://www.bureau-europa.nl/en/think-global-dig-local/ (accessed on 13 May 2023)), upturning Patrick Geddes' thinking from a century earlier. This slogan reflects the unique research methodology which the studio has developed and adopted to respond to and understand local ecosystem services. Their work calls attention to local materials and resources. Atelier NL has created two bodies of work in the last two decades which showcase the richness of local earth and sand to produce local clays and glass types. Michael Welland, a British geologist and sand expert with whom they worked, noted how Atelier NL creates 'powerful evocations of our intimate relationships with the primary materials of our planet' (Atelier NL 2023).

Atelier NL were invited in 2007 to work in the rural area of the Noordoostpolder region of the Netherlands, in the northeast of the country. When this area of farmland was reclaimed from the sea during WWII, designed as an 'agricultural utopia', it was divided up into neatly sized plots each measuring 24 acres (330 × 800 metres), thus providing a ready-made matrix onto which the soil samples could be catalogued, following the contours of the geography. From this rich farmland, the duo dug hundreds of soil samples, carefully plotted each clay sample, and fired them into small ceramic tablets. From these geolocated samples, a large wall-mounted geological soil map was created with colours ranging from pale beige to deep brown (Figure 1). Each tile not only demonstrates the many variations of tone, colour, and texture of each clay, but also charts each farm plot from whence it came and the stories and lives of the corresponding farmer who farmed the land. Each soil type in turn corresponded to the crops which are typically grown: from sandy, chalk-rich earth favoured for grazing cattle and growing tulips to the heavy iron-rich soil preferred by root vegetables and the deep brown dense earth ideal for trees. These clays in turn fired from a pale creamy sandstone, a deep orange to a deep oxen blood brown red. As the soil samples were collected outside during the summer months, and the work was developed indoors during the colder winter months, the project gave the designers a different perspective on time and a heightened awareness of seasonality.

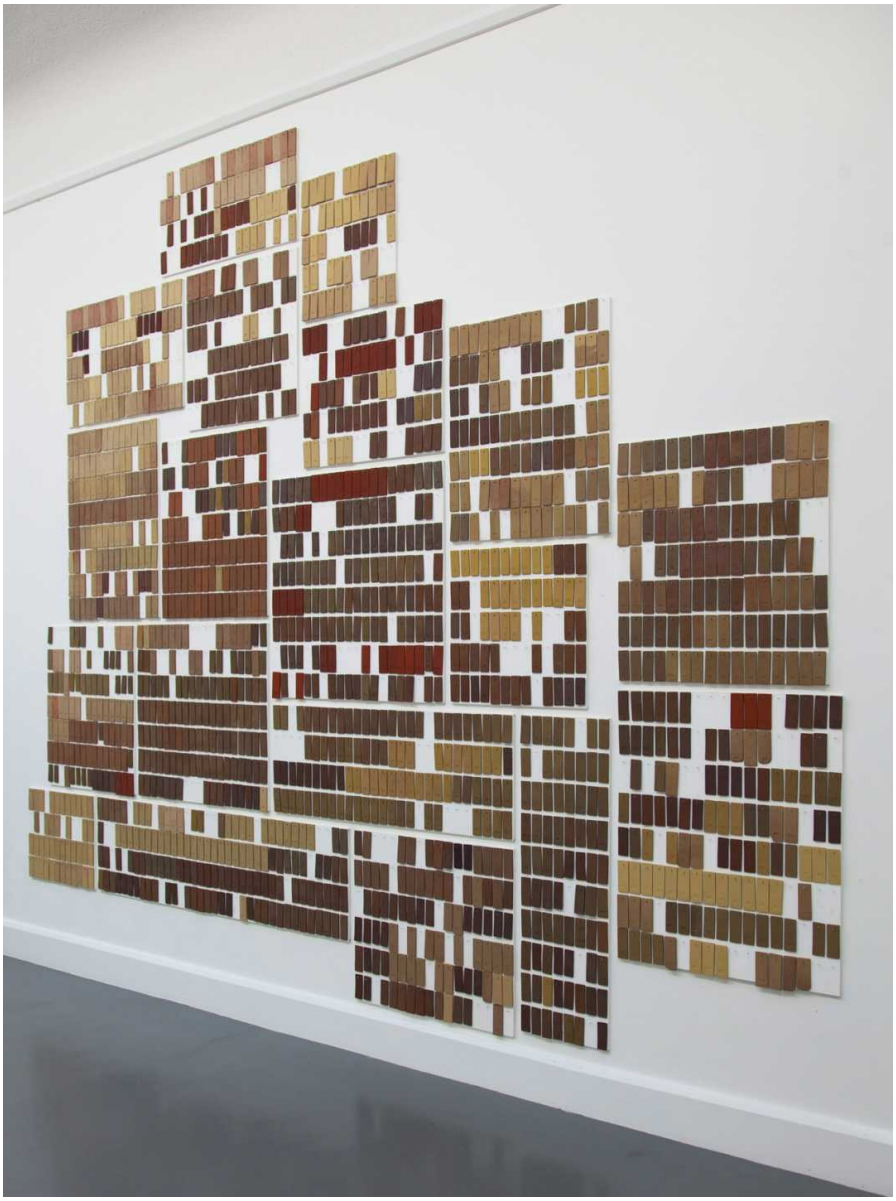

Figure 1. *Polderwall*, Atelier NL (2007). Source https://ateliernl.com/projects/polderwall (accessed on 13 May 2023) (with kind permission from the artists).

The clay tiles visualised in the map directly informed a ceramic dinner set created from the local clays of the local farms (Figure 2). *Polderceramics* reflected the mineral composition of the soil in each clay sample. In addition to its geolocated production, each dinner set was used to serve food made from locally grown produce, thus further making the connection between local ecosystem services provision: 'the vegetables eaten for dinner can be served from the very same soil that produced them; milk is poured from a pitcher made from the same earth the cow grazed, or a bowl cradles strawberries in the same earth from which they grew' (source: https://ateliernl.com/projects/polderceramics (accessed on 13 May 2023)) (see Figure 2). Each sample thus spoke of its unique ecosystems, and as a consequence, the cultural ecosystem services that would be emergent from these. This method had been established in an earlier work, *Clay Service*, made from clays from each of the fourteen distinct geological regions of the Netherlands where each dinner service set was stamped, like map co-ordinates, to mark the location of the origin clay from which the dinner wares were made.

Figure 2. *Polder Ceramics*, Atelier NL—Source: https://ateliernl.com/projects/polderceramics (accessed on 13 May 2023). (with kind permission from the artists).

3.2. Mapping Glass

Taking a similar approach learnt from mapping soil to create geo-specific ceramics, Atelier NL followed an ancient Roman glass and sand trade route across Western Europe to create *ZandBank* (translates as Sand Bank) to *map* the material qualities of each sand sample and fire it into a corresponding glass sample (Figure 3) with over eighty samples. Similar to the clay, the unique qualities of each sand, determined by its mineral composition, yielded a different glass. White sands are rated for their clarity and favoured for the global production of screens and construction glazing, but are only found in a few quarries worldwide and are compounded by an increasing shortage globally (Torres et al. 2017). Atelier NL wanted to challenge these conventions by researching the geological history and chemical composition of sand. Atelier NL laid out this research and experimental glass-making in a catalogue of over forty samples presented in sample trays, test tubes, and other scientific equipment in *Monnikenwerk* (2010). By using the trope of the science laboratory, Atelier NL wanted to encourage discussion and interest from scientists and other professionals to consider the potential of these sands in localised glass production. Akin to the *Polder Ceramics*, *ZandGlas* (2015) is a collection of glass jugs and corresponding glass collection made from ten different sand types, thus resulting in ten different hues ranging from a pale green tint to a deep dark bottle-green glass. The studio is currently working with 'waste' sand from the gold mining industry in South Africa to explore if a viable glass product can be made from this waste stream, working with local artisans in Swasiland. This addresses an existing waste stream and creates a localised economy. It is arguably not a fully circular design model, as it is notoriously difficult to create a fully circular economy with materials which have been fundamentally transformed from raw

clay and sand into new glass or ceramics and cannot be composted or returned to the source.

Figure 3. *Zandbank*, Atelier NL. Source: https://ateliernl.com/projects/zandbank (accessed on 13 May 2023) (with kind permission from the artists).

However, when Atelier NL won the Dezeen Designer of the Year in 2018, the comments of the judges highlighted its sensitivities towards place-specific making practices:

> *'This studio shows a consistent sensitivity throughout their work, concentrating on local materials and responsible production practices whilst also maintaining a very high level of aesthetics throughout all their projects. They tackle ideas such as sense of place and geographic specificity successfully, making the conversation about sustainable practices a richer one. Using impressively rigorous and interesting design thinking, they create beautiful objects with good craftsmanship'*. (Judges comments, Dezeen 2018: https://www.dezeen.com/awards/2018/winners/atelier-nl/ (accessed on 13 May 2023))

4. Discussion

Although Atelier NL is a design practice, rather than an environmental arts practice like the Harrisons, the methodologies deployed by the studio find resonance in the methodology outlined by the Harrisons to respond to and understand local ecosystems. I have argued elsewhere for the importance of place-based craft practices to support sustainable enterprise (Panneels 2023), but in this paper I wanted to draw particular attention to the relevance mapping can play as a research method to connect to, understand, and make visible local ecosystems. As outlined in the Ecosystem Services approach, Cultural Ecosystem Services emerge from the 'services' local ecosystems provide, such as soil, nutrients, minerals, and food, and quite literally shape and colour the local 'cultural production'. Through *mapping*, informed by substantive research, and then 'making with data' (Huron et al. 2023) as a physical manifestation of data points in tangible objects, a real understanding of local ecosystem services can be gained. The emergence of creative mapping within

other disciplines has been evidenced in the substantive literature on geographical, philosophical and cultural discourses. Thus, mapping has been acknowledged as a meaningful methodology with which to gather complex and interconnected datasets within the field of data visualisation. This has particular relevance to our contemporary data-rich society, where mapping has become the most efficient and sophisticated method of recording, transmitting and transferring knowledge. I argue that it is the physical manifestation of this research, of this data, which gives this work relevance in the context of understanding ecosystem services. Through the act of making, connections with local ecosystems are made visible and manifest and tangible: soil and sand are mapped, and local clay and glass are turned into objects from which local produce can be sampled and tasted. These objects thus speak not only of (scientific) data, mineral content, geography and soil types, but also of locally produced food through crafted cultural objects that speak of place.

It Is noteworthy that Atelier NL embarked on their clay journey of discovery when volunteering at an artisan's collective in Peru where local potters 'don't buy their clay, they dig it out of the ground, prepare it, dance on it to remove the air bubbles' (Lonny Sterk: https://ateliernl.com/projects/polderwall (accessed on 13 May 2023)). The case study presented in this paper arguably addresses SDG 12, responsible consumption and production, and SDG13 on climate action. It is, however, difficult to make a clear argument that these practices, like any other energy-intensive activities, contribute towards carbon-neutral production unless all energy requirements are delivered by renewables, which they are not. Whilst environmental art practices generally strive to leave ecosystems better than first found, this is not necessarily a tenet of Atelier NL. However, I am making the case that the methodologies presented by the Harrisons, as eco-art pioneers, find a lot of resonance in the working methods of Atelier NL. Arguably the key contribution this work makes is signposting how production can become more localised, and can, in turn, speak of its place. If the Anthropocene is indeed a renouncement of Modernity and its concomitant globalisation, then these mappings of clay and sand can be understood as examples of the new ontopolitics of the Anthropocene, of complexity and interconnection. The experimental geographies explored in the mapping practices of the case study discussed mapping as a spatial practice of culture, and are evidence of cultural ecosystem services.

5. Conclusions

I contend that mapping can support a reimagining of what we think is *possible* to generate, produce, and make from local ecosystems and thereby re-connect to traditional ways of making and of knowing but placed in the context of our contemporary living. It argues for a sustained, localised means of production which draws upon but also supports local ecosystems which in turn nourishes and sustains local cultural ecosystem services. It is these 'two intertwined strands of the regeneration and the sustaining of the environment on the one hand and of the revival and sustaining of culture on the other' (Macdonald in Macdonald 2004, p. 61) which were fundamental to all of Geddes's thinking. This finds resonance in Atelier NL's mapping methodology, which unearths cultural ecosystem services provided for by local ecosystems. By thinking globally but digging locally, the spirit of Geddes has found new traction in the mapping work of Atelier NL.

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Conflicts of Interest: The author declares no conflict of interest.

Note

[1] The author interviewed Anne Douglas and Mark Hope who were Trustees of The Barn, an art centre in Aberdeenshire, Scotland, and had commissioned The Harrisons to interrogate the Don and Dee river Delta in Aberdeenshire which culminated in The Deep Wealth of This Nation, Scotland solo exhibition at The Barn in 2018.

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