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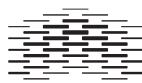
Edited Aesthetics of Taste

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Edited

- 1. prepared for publication by correcting, condensing or otherwise modifying.*

Aesthetics

- 1. a set of principles concerned with the nature and appreciation of beauty.*

Taste

- 1. to perceive or experience flavour.*
- 2. a person's tendency to like or be interested in something.*

'Eating futuristically, one will use all of the five senses: touch, taste, smell, sight and hearing' - Filippo Marinetti, 1932.

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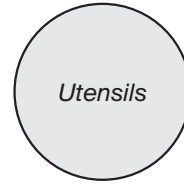
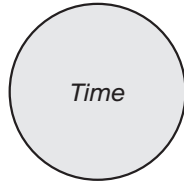
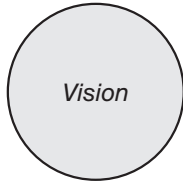
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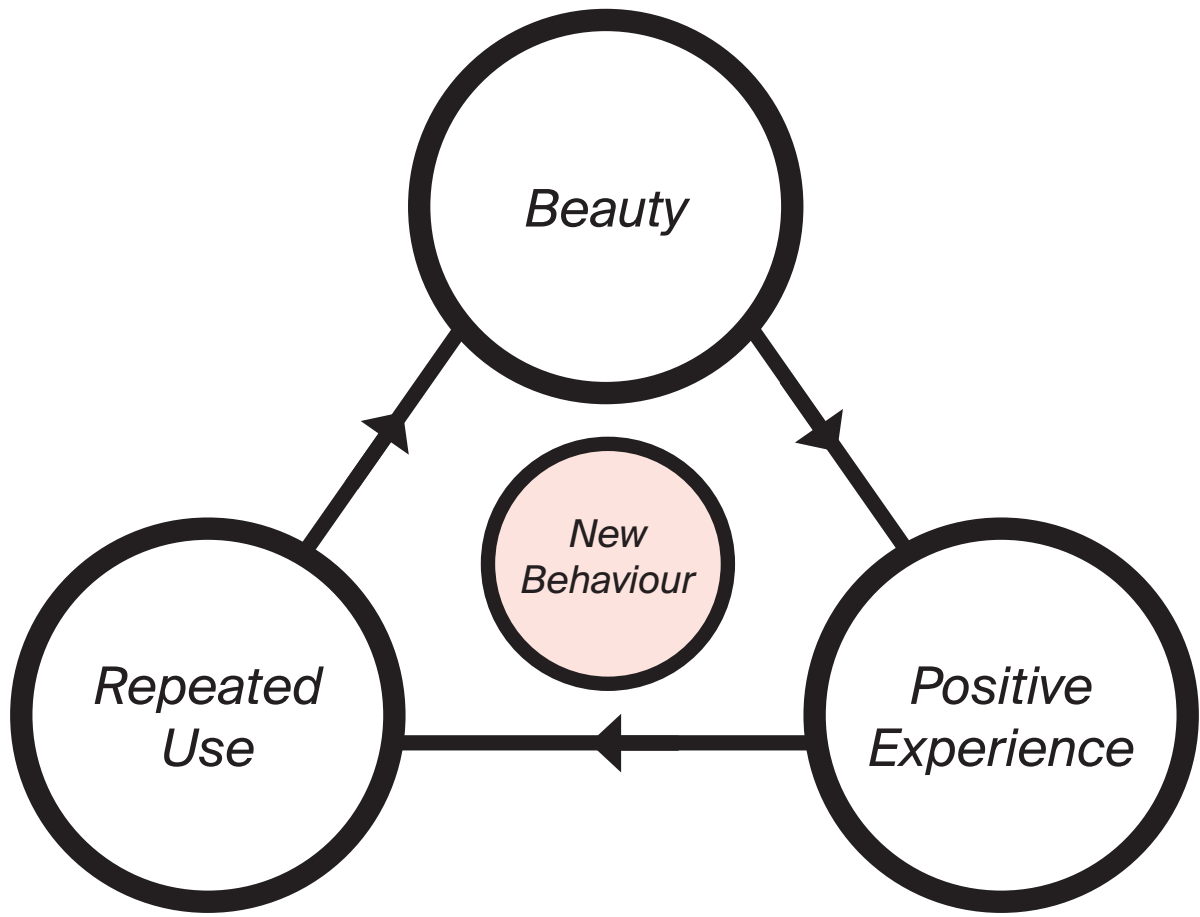
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1. PLANT

(Background and Motivation)

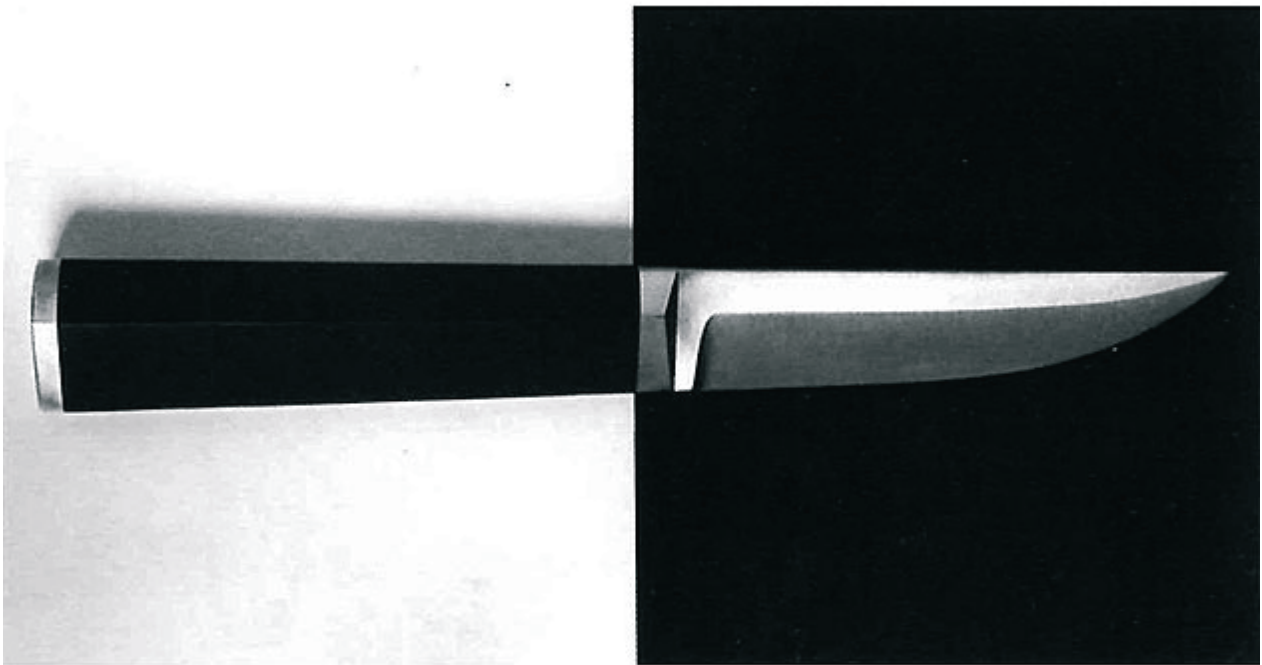


1.1 Introduction

This thesis is an exploration of aesthetics in the context of eating, and uses the fast pace of contemporary Western life as a departure point in search of slower, more meaningful food experiences. Beginning with an introduction to the Finnish architect and scholar, Juhani Pallasmaa, who has written extensively on the subject of 'Fast architecture' as a consequence of modern life, it follows his suggestion to design for a wider range of senses as a counter point to speed, and as a possible gateway to slow architecture, buildings and therefore design (beauty+quote). This way of thinking is presented in a different scale through the furniture of Alvar Aalto, particularly in his chairs and stools produced in the 1930's. Aalto's preference for birch rather than the more rational option of steel is used as a comparative analogy between steel knives and forks and the potential of wooden eating utensils. Further, behavioral comparisons are made between the two materials through the Italian artist/ designer, Bruno Munari- who has discussed the slowing effects of wood used in Japanese homes, which differ from the harder, more industrial materials of residential buildings of Italy, and can create more deliberate movements of the body. The concept of *Everyday Aesthetics* is introduced, which serves as a platform for the recognition of beauty within mundane activities - and how these can be altered by design through the positioning and arrangement of objects, and their order of use (Saito, 2007). This can be seen in terms of temporality and aesthetic experience, heightening awareness as time unfolds, and includes the act of eating.

Eating became the area of focus due to the growth of food design as a field in recent years, which has occurred largely due to the obvious need to question contemporary food systems in terms of sustainability. This is reflected in the rise of food/ eating as a specialism within European design education institutions and offices, all providing potential solutions or debate on the subject. Eating is also a fruitful part of life in which to design with aesthetics in mind, because it is 'the only thing we do that involves all the senses' (Spence, 2013, p.1). Historical examples are presented in the form of *The Futurist Cookbook* (Marinetti, 2008), which introduces the playful manipulation of sensory ingredients within a meal, in the context of a 1930's Italian restaurant. This has provided inspiration to a new breed of chefs and artists, who are organising gastronomy events that focus on avant garde proposals for dishes and tableware in an attempt to question usability and their guests's relationship to food. This is also increasingly the case among leading chefs such as Ferran Adriá, who has said that 'cooking is probably the most multi-sensual art. I try to stimulate all the senses.' (Spence, 2013, p.1). The understanding of sensory input in the context of dining is discussed in the form of an emerging field of behavioral science known as *Gastrophysics* (Spence, 2017), as well as collaborative examples of the amplified inclusion of sound, smell and touch currently found on the tasting menu's of *Michelin Star* restaurants. Such methods are being used as a gateway to altered emotional experiences for diners, and serve as examples of emotional design.

This became the founding logic of a design approach- that senses, as experienced through materiality can lead to positive user experiences. When translated into the home in the form of eating utensils, this could lead to repeated use and new (eating) behaviour. Case studies provided local, Nordic expertise in the fields of



Puukko knife. Tapio Wirkkala, 1961.

tableware design (*Odd Standard*, Stavanger), cooking (*Kamai*, Oslo) and aesthetic theory (Akner-Koler, Stockholm). This led to collaboration with a chef, as found through research in examples of gastronomy events, *Michelin Star* restaurants and *Gastrophysics*. The sensory focus became the sense of touch- as understood through an extended definition of *Haptica* (Akner-Koler, 2017), resulting from the case study. This, after a period of artistic research and mapping, led to a return to the birch hardwood used by Aalto (Pallasmaa, 1984). Knowledge of the material was learned through form exploration and testing, and led to a set of five utensils offering a range of aesthetic choices and function options for the user, during a meal. They have been designed to challenge preconceptions of the knife and fork, and to challenge the user to prepare food which can be eaten with them. This is thought to be justified due to the materiality and experience of use, which focus on playfulness and the pleasure of eating slowly, providing motivation. The amount of utensils offers the opportunity for pause and selection, and is in keeping with the notion of aesthetic choice presented by Saito (Saito, 2007). By pairing the birch utensils with a cloth bag and resting stone, a multi-tactile experience is made possible, as well as the opportunity to wrap, protect and maintain the hardwood- extending opportunities to feel the materials in the hand and to build layers of narrative and meaning. These ideas are discussed through the lens of *Emotionally Durable Design* (Chapman, 2015) and follows the idea that time spent with objects might increase their life in service. An extended palette of granite and hemp is intended to reflect the sustainability ideals found in many leading restaurants, as well as the rules established by the organisers of gastronomy events- for which designers are expected to use only natural materials. This is exemplified in the case of the Dutch group, *Steinbeisser*, and led to the concept of 'unfinished objects', suggesting that the utensils presented in the proposed kit could be developed further into more or less extreme versions (Julier, 2009, p.93). They have been tested in three scenarios; social dinner, everyday and restaurant- and show the potential to be developed further into versions which are appropriate for all three contexts. That is to say that as with all design projects, *E.A.T* concludes with a series of open-ended iterations. The existence of the kit is one, and it afforded a period of testing which naturally informed future possibilities.

The thesis will follow a format throughout in which text will be on the right page, with images on the left. Some of the images are figurative examples relating directly with the text, others were chosen as illustrations, supporting the mood of a given discussion. One example of this is the *Puukko knife* opposite, by Tapio Wirkkala, which for me embodies some of the key themes covered within this project. It is an example of Finnish design, to be used by the hand, and the knife is a key tool used within cooking, as well as other crafts. Wirkkala is often referred to by Pallasmaa as a great influence and master craftsman, working as he did across graphic design, industrial design and sculpture, in a wide range of materials (Pallasmaa, 2017). This also describes the different but complimentary craft knowledge present in the hands of both chefs and designers, which can be connected by the idea of food as a material. A map-guide will appear at the front page of each chapter, providing three key words for the coming parts. This will develop throughout the thesis and can also be used as a short summary of previous chapters.

1.2. Research Question:

How can the interplay between materiality, senses and time be explored within design for eating?



Aina Aalto sitting in a *Paimio Chair*. Circa 1931.

1.3. Referential Framework

Aesthetics

A chair is three-dimensional. It has textures, weight, and its colour is affected by the changing light of the space in which it lives. Depending on the materials used to produce it, it will emit smells and if it is light enough to push, it will make a sound as it slides across the floor before crashing, bouncing, thudding against a three-dimensional wall or table. Chairs vary in size, and we interact with them by moving, stacking or leaning them using our hands, our feet, our fingers. To hear them we use our ears. To smell them we use our nose. This is true of clothes, plates and bicycles, just as it is true of furniture, but when we assess these objects, talk about them, and possibly when we design them, we are concerned primarily with how they look. The bicycle looks so stylish. The jacket looks great on you. The chair is a beautiful colour. This the aesthetic, but to extend the myth, it doesn't give us the whole picture. When we ride a bicycle it requires balance and movement, a comfortable saddle and a quiet transmission. When we sit on a chair we feel the fabric on our skin and hear the creak of it supporting us, and when we hang the coat we feel its texture and weight as we hang it on a three-dimensional hook. Our experience of objects is multi-sensory and involves more than our eyes, because senses are the organs by which man places himself in connection with exterior objects (Brillat-Savarin, 1825, p.11).

The *Oxford dictionary* definition for the word aesthetic describes it as an activity concerned with beauty, or the appreciation of beauty. This has historically been theorised in terms of two forms of human expression; visual art and music. As such, aesthetics traditionally concern the senses of sight and hearing. So-called secondary senses- touch, smell and taste- have been refused artistic status because they can not so easily be isolated within an experience, and therefore a discussion. Instead, they influence each other through synaesthesia- simply described as a blend of sensory perceptions within a moment. For example, when we taste soup, our sense of smell also participates. When we touch textured wool, we can also see it. Music, at least by most, can only be heard (not smelled, seen, touched or tasted). Paintings and sculptures seen in art galleries, can not be touched, smelled, tasted or heard. Therefore, they can be discussed in terms of their aesthetic quality. This is not to say that secondary senses do not have aesthetic qualities, but rather that they have not been accepted as true components of art-centered aesthetic theory. Consequently, general use of the word aesthetic today refers to the sense of sight, to what is seen, and is rarely used in a conversation about music. It is therefore understandable that in a contemporary consumer, visual culture of the West, when the 'aesthetic' of a forest, a house or a chair is mentioned, it will almost certainly be in reference to visual appearance. Furthermore, since so many of our experiences are documented and shared on connected devices, other sensory qualities (with the possible exception of hearing in the case of video) are beyond our experience and as such, beyond consideration. It is perhaps too difficult to accurately imagine the taste, smell or feel of something, even if we try. To experience the world in this way is of course convenient in terms of the screen's ability to visually transport us to the image of a chair in a store, an exhibition or a house, but it is a diluted version. We are, after all, biological creatures with physical bodies, arms and legs (Norman, 2005, p.79), and the chair is still a three-dimensional object.



The Lonely Metropolitan. Herbert Bayer, 1932. (cover art for *The Thinking Hand* by Juhani Pallasmaa).

As product designers we are meant to bring products into the world that satisfy a complex set of demands made by users, producers, society, and ourselves- justifying their existence economically, ethically, environmentally and culturally. If the designer is predisposed to specialise in objects, then he or she will use materials, and those materials will require resources and energy, natural or otherwise, and the resulting product will exist physically during use, and usually still physically at the end of use. In an ideal world, the object is meant to provide meaning, beauty, problem-solving function and other things, while also being hard-wearing, long-lasting and/ or repairable. Sadly, however, in contemporary Western society, such culturally sustainable ideals are not always the criteria on which a product is judged.

If we agree that part of a products appeal is its ability to convey a preferable image of its owner- to friends, colleagues, ourselves- as an agent of self-extension (Schifferstein & Zwartkruis, 2008), then the aesthetic image of that product is surely its strongest weapon. This is exacerbated within a consumer culture which is so keen and, through technology, able to quickly present romantic, high-resolution images of such product/ user relationships. The same pursuit of presentation is arguably also true of designers and manufacturers, as products are posted or published for the market to garner feedback and revenue. Michel de Certeau could easily be describing *Instagram*, when writing that, 'From television to newspapers, from advertising to all sorts of mercantile epiphanies, our society is characterised by a cancerous growth of vision, measuring everything by its ability to show or be shown' (Pallasmaa, 2012, p.25). This poses a significant design challenge, and might be 'alienating vision from emotional involvement' (Pallasmaa, 2012, p.25). Connectivity now creates a visual spread everywhere, all the time, continually reducing our perception of all things three-dimensional to a view- tempting manufacturers to evade the difficulty and expense of developing long-term products and experiences in place of short-term, highly visual product images. Design is simultaneously a proponent of, and dependent on the visual sense, posing designers to question their position in relation to the market and its gaze. Both designers and consumers are searching, until the virtual object- in a publication, an online store, a social network- is found and deflowered (Chapman, 2015), before the cycle begins again. Consumption itself now happens visually/ virtually.

Senses and space

'The fundamental event of the modern age is the conquest of the world as a picture' - Martin Heidegger

The subjects of senses and aesthetics have been discussed in term of architecture by Juhani Pallasmaa and therefore provide referential support for the related subject of three-dimensional design. In his 1996 book, *The Eyes of the Skin*, Pallasmaa outlines contemporary understanding of the word Aesthetics as having a predisposed association with sight, or visual appearance, due to artists managing to convey perspective in paintings (Pallasmaa, 2012). This became the dominating way in which the world was understood and has led to what he calls a mis-use of computers within architecture. In response to this, the themes of senses and design are discussed, in which Pallasmaa critiques architecture of the time as a practice that has itself become mainly visual, with less regard for other aesthetic considerations



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1. *Wassily Chair*. Steel / leather. Marcel Breuer, 1925.

2. *Armchair 41*. Birch. Alvar Aalto, 1932.

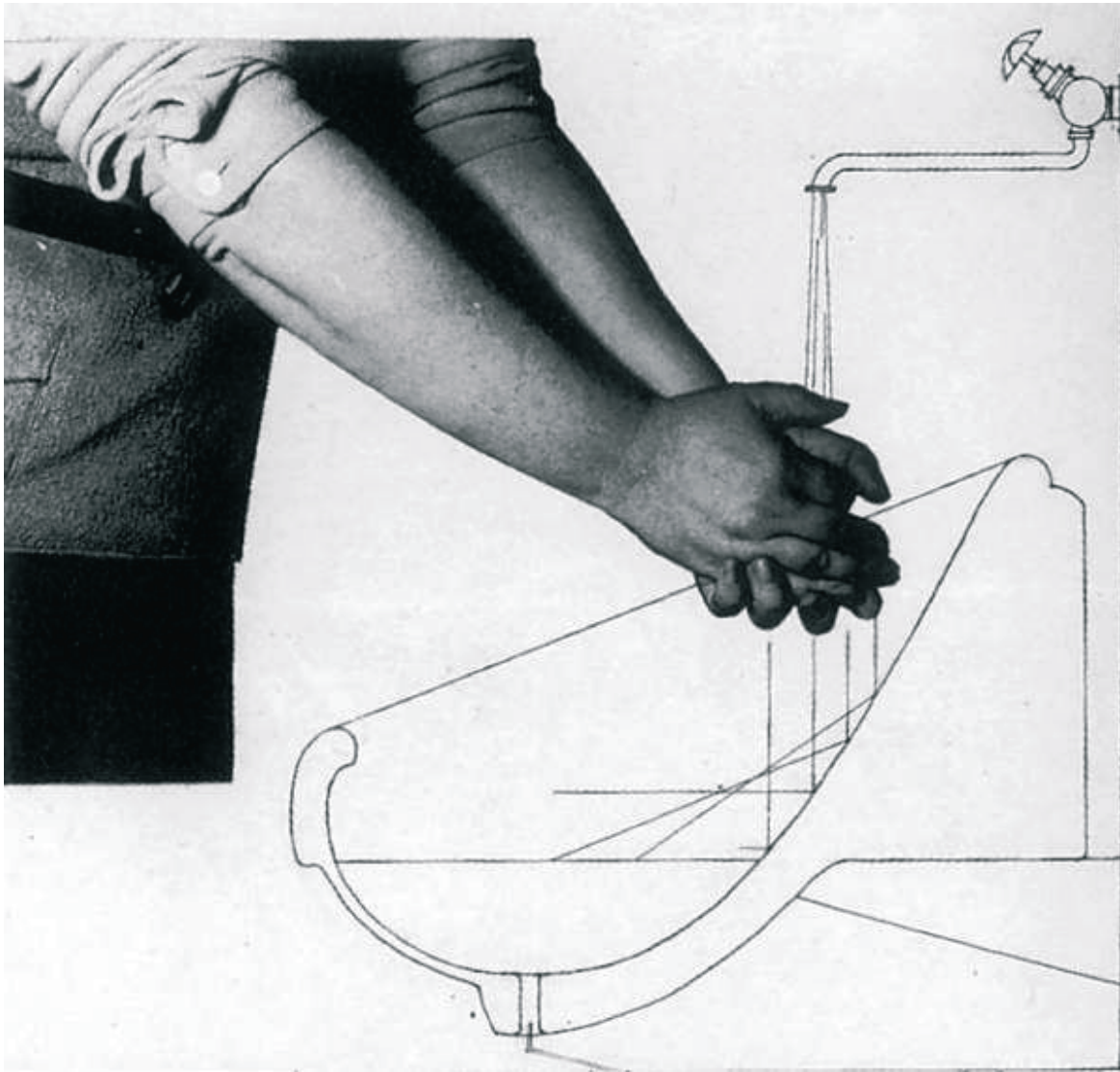
(Pallasmaa, 2012). As such, in his opinion, it is a missed opportunity for deeper, richer experiences for the users of buildings and space. A range of five senses, defined by psychologist James Gibson, are referred to as follows; Visual, Auditory, Taste/ Smell, Haptic, Basic Orienting systems (Pallasmaa, 2012, p.45). Pallasmaa refers this framework when appealing to young architects to consciously consider how a building will smell, how it will sound, and that these factors along with vision 'can be regarded as extensions to the sense of touch' (Pallasmaa 2012, p.45). Although these sensory considerations appear in the context of architecture, they are arguably relevant as parameters for three-dimensional objects of any scale, in any space. At any moment, a varying number of senses are likely in use during the experience of of an object or a building, and combine to make up the total aesthetic experience. This logic formed the basis for a multi-sensory approach to design, and led to further reading within Finnish architecture, aesthetics and domestic objects.

Materiality

'As you know, you need a nail to make soup'- Alvar Aalto

Juhani Pallasmaa offers a view of contemporary design as one which is 'often criticised for its social exclusiveness and inability to harmonise with contexts beyond its narrow aesthetic realm' (Pallasmaa, 1984, p.10). In his opinion, Aalto is an exception to this because his approach and choice of materials managed to 'overcome the barriers of style and taste, fashion and social class' (Pallasmaa, 1984, p.10). Most of Aalto's furniture was the result of his work as part of an architectural wholeness, through the mixed society of public buildings, aristocratic residences and worker's cottages (Pallasmaa, 1984), and is perhaps a first glimpse of the connection between buildings, objects and self, also seen throughout history in Japanese culture, an influence found later in Aalto's career, in the *Villa Mairea* building, through the use of simple, natural materials (Aalto, 2017). In Japan, spaces mirror religious and philosophical thinking on a human scale, and therefore go beyond the eye.

His concerns are not to create superficial comfort, but to create 'conditions for wellbeing in everyday lives' (Pallasmaa, 1984, p.114). One example of an object which resulted from an architectural project is the *Paimio chair* of 1932, as part of the *Paimio Sanatorium* project. His use of bent, birch plywood came at a time when tubular steel furniture was achievable on production levels, perhaps most notably in designs born out of the *Bauhaus* in Germany, with now classic examples by Marcel Breuer and Mies van der Rohe. But while respecting the rationality of steel, Aalto was aware of the emotional benefits of using wood. When reflecting upon steel's excessive glare, excessive ability to conduct heat, or acoustic unsuitability for a room, he is referring to human senses and how they combine to build an aesthetic sensation for the user- an experience - which goes against a tendency for people to enjoy the mystical concept of "cozy" (Pallasmaa, 1984, p.116). This is perhaps especially true in the context of the home, where the purpose of architecture (and design) is to 'bring the material world into harmony with human life' (Pallasmaa, 1984, p.118). In this way, Aalto took a somewhat critical/ constructive position, by materialising objects whose form went 'beyond a fashion phenomenon' and this supports an interest in wider sensory consideration throughout the design of objects (Pallasmaa, 1984, p.115).



'Noiseless', splash-proof wash basin drawing for the *Paimio sanitorium*. Alvar Aalto, circa 1930.

The underlying influence of the earlier *Arts and Crafts* movement, pioneered by figures such as John Ruskin and William Morris, were present in Aalto's approach to democratise architecture and design. This was also seen in Sweden during the early part of his career in the *Vackrare Verdagsvara* (more beautiful things for everyday use) movement, in which the goal to gradually industrialise crafts/ arts so that higher quality products were available for lower prices (Pallasmaa, 1984). This aim of democratising quality- lifting it out of exclusivity and into the norm- is reminiscent in the context of organic food movements of today, as a reaction against the industrial production of low-quality food. The connection between the potential values of food and design are relevant here, in their joint ability to profoundly affect the standard of living.



Tea ceremony, Kyoto. Werner Bischof. 1952.

1.4. The Matter of Time

Moments

When looking for wider definitions of beauty, Yuriko Saito presents the concept of *Everyday Aesthetics*. Temporality, and awareness of life as it happens are central themes, and point to design parameters which are not always present in Western products. Similarly to Pallasmaa, Saito begins with the art-centered definition of aesthetics as ‘conventional forms of Western art such as paintings’ - noting an extended list recognised by aestheticians including music, literature, dance and theatre (Saito, 2007, p.9). She brings attention to ‘any reaction we form toward the sensuous and/ or design qualities of an object, phenomenon or activity’ (Saito, 2007, p.9). As long as these moments fall within social, cultural and physical boundaries, according to Saito, they become part of the ‘multi-faceted nature of our aesthetic life and include mundane, daily activities such as walking, cooking and eating (Saito, 2007, p.3). In that way, these are momentary chances to experience meaning or beauty within otherwise ordinary tasks, and take place beyond the walls of art galleries, as well as inside them. Aesthetic life, according to Saito, happens naturally through nature -a sunrise, a breeze, the sound of trees- and, crucially, deliberately through design. She sees a responsibility for designers to improve the state of people’s lives, and that of the world, through artefacts (Saito, 2007). Perhaps if Western eating habits are not typically designed to contain mechanisms which create opportunity for reflection and awareness, instead preferring speed and convenience, this would explain Saito’s position that ‘our experience of everyday objects and environments often goes by unnoticed, except for their functional value’ (Saito, 2007, p.2). To see eating and other activities as potential chances for reflection and appreciation, is the basis of everyday aesthetics and a way of thinking that provides an abundance of inspirational spaces to occupy as a designer. Therefore, when designing objects used to eat in a Western context- plates, bowls, cups, cutlery- spaces might appear within these interactions which disrupt more passive behaviour, and allow pause for thought. Despite some of Saito’s examples from Japan, she is clear to clarify that such aesthetic experiences are not reserved only for Japanese artefacts. Details regarding the eating and packing of food in Japan, as well as experiential details of the Japanese garden which relate to temporality, order and respect for materials, offer an ingrained approach to experience and aesthetics which is in some ways unique within Japanese culture. These can be seen as designed paths to an experience of beauty in moments which could have more easily been deemed ordinary, and became key references throughout my project. As such, given my research question; eating as a platform for exploration within sensory design; a study of the interplay between food, objects and experience, they are relevant as examples of time being used as an active component, and its affect on aesthetics and experience.

The order of eating

Working from a view that the act of Western, everyday eating provides little opportunity for reflection, and given the well-documented benefits of Japanese eating habits with regard to health and long-life, designed aesthetics widely deployed in Japan can be seen as a source of positive influence. As part of Saito’s discussion, she claims that temporality is experienced in the slower act of ‘picking up



Seasonal Japanese meal, 2016.

one piece of food at a time with chopsticks' (Saito, 2007, p.231). Order is found through a set of aesthetic choices, based on our order of preference from the meticulously arranged variety of ingredients (Saito, 2007), which is in part due to a selection of food being served at once, and unlike the more linear style of 'courses' offered in the West. Although this apparently moves the discussion away from design and utensils, and towards food, there is arguably a connection between the two in a Japanese context, where attitudes to one influence the other. In this way, it is fair to suggest that the food is designed with the tools in mind. This contributes to a ceremonial component within these highly aesthetic acts of eating, as well as the larger ideas they represent. Food itself is regarded as an other-than-human entity (Saito, 2007), part of a sensitivity to the temporal nature of existence, and therefore when treated this way has a wider significance as we pursue sustainable design practice, by potentially embedding a sense of value within the produce as well as the experience of eating it (Saito, 2007). In the case of food packaging, materials such as paper are also treated with respect not only because of the moral dimension, but because the sensitivity and respect embodied in the wrapping itself instills reciprocal behaviour. Again, this represents a sense of respect, and places eating within a mentality to do with the diligent and ritual practice of certain tasks, referred to as *Shinto*. Eating, as an act, is therefore highly aesthetic in part because of these philosophical, religious and cultural components, which are embodied in the objects used to facilitate them. In that way, in spite of cultural differences in the West, similar situations are designable and might inspire the recurring care and attention which is placed even on everyday meals in Japan (Saito, 2007, p.230). In the context of eating in the West, and due to an apparent lack of such rituals, the objects used while eating must be called into question, or at least revisited.

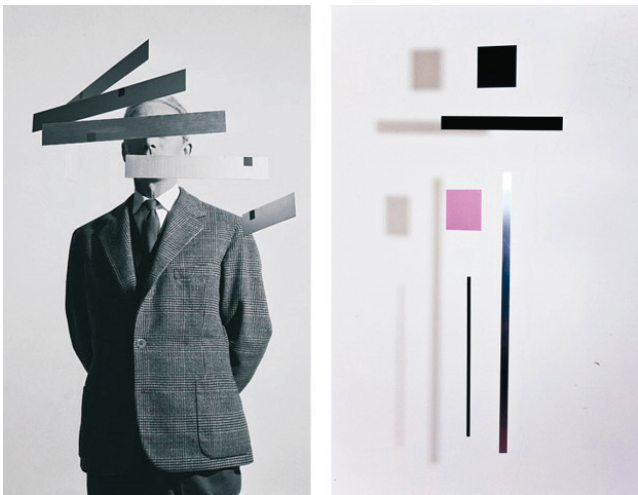
Linking back to Pallasmaa's introduction to senses and how they feature as part of aesthetic experiences, whether designed/ natural or consciously/ unconsciously, Saito notes that the spatial arrangement of food on a plate accentuates the best sequence for elucidating the taste and textures (Saito, 2007, p.231). Here she is talking about basic orienting and haptic senses, as well as taste and smell. When writing how the uneven, rock path in a typical Japanese garden forces us to slow down and 'savour each stone's texture, colour, shape and size, directing our feet to changing vistas and fragrances' (Saito, 2007, p.228), she is also using a sensory language, in reference to haptics and smell, which are heightened by extended time. These sensuous qualities are design considerations for any object or space and it is these 'with which we interact, along with natural elements, making up our aesthetic experience of the world in which we live' (Saito, 2007, p.2). As such, our experiences can be influenced by design not only through materials and sensorial qualities, but also by more abstract values such as time and order, leading to new patterns of behaviour. Although Herbert Read has been cited as saying that 'it requires a somewhat mystical theory of aesthetics to find any necessary connection between beauty and function' (Norman, 2005, p.18), Saito's concept of *Everyday Aesthetics* provides that, by presenting the idea that through objects, enabled by their function, beauty can occur by design.

Materials and Movement

The aesthetics of materiality can be experienced through design and experiences, via groups of objects in specific situations. But what are the effects of materiality in the context of behaviour and understandings of time in the home? An overlap be-



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1. Worn-down wooden spoon.
2. Bruno Munari / *Useless machines*. Circa 1930.

tween Italian and Japanese thought can be found through Bruno Munari (Munari, 2008). Of knives, forks and spoons, he lambasts the Western convention, claiming that 'today there is an implement for every specific purpose, that each operation and each single item of diet requires its own implement' (Munari, 2008, p.138). He forms a bridge of thought between Italy and Japan - critical of Western excess on one hand, and in admiration of Japanese restraint on the other. He goes on to refer to 'implements made of natural wood, like two giant toothpicks' which are easy to use because the food is cut beforehand into 'mouthful-sized pieces' (Munari, 2008, p.142). This is not only a comment on the materiality of the eating utensils, but also on the materiality of the food itself, and how they contribute to make different behaviour between continents and cultures. He talks about materiality in the context of homes, and the way in which natural materials traditionally (and often still) used in Japan affect the aesthetics not only visually (diffused light experienced through paper screens) but also haptically. 'The bathtub is made of wood,' he says, 'the most pleasant of materials to the touch.' (Munari, 2008, p.109) For Munari, these architectural choices are experienced and observed through altered behaviour - how people move within these spaces, and the care and attention that must be paid with objects one might be carrying. 'One cannot bang doors or spill things' (Munari, 2008, p.109). By comparison, Italian floors are typically made of marble, not tatami mats, so it is fully possible to 'drop our cigarettes onto them,' or wear shoes indoors, instead of 'behaving in a more civilised way' (Munari, 2008, p.109). As well as pointing to cultural, architectural differences, Munari highlights the different kinaesthetic relationships which are created by the choice of materials.

He refers to the prevalence of the wooden spoon in everyday/ home kitchens, used to stir soups and sauces' (Munari, 2008) describing how the original shape will alter during use, over a time. The cause of the missing part is of course the result of it being used in the saucepan, flattening a curve on one side, until it 'shows what shape a spoon for stirring should be' (Munari, 2008, p.123). Time can be understood through everyday objects, and that in the case of wood, this is perhaps more acceptable, even appreciated, than in the case of many other material. Munari provides inspirational support not only in these views, but also through his own work with physical objects. His useless machines have been described as responses to the concept that painting should be transported into a temporal dimension (Zaffarano, 2014), beyond the boundaries of traditional art or static sculpture, and form a link between the limitations of a two-dimensional medium and its relation to time.

Use

Time and simplicity are discussed in relation to the design and possession of everyday objects within the subsequent *Super Normal*, an exhibition and subsequent book by Naoto Fukasawa & Jasper Morrison. The collection is a retrospective celebration of form and function which asks if beauty is just a question of looks, or could there be more to it than meets the eye? (Fukasawa & Morrison, 2007). The curator/ authors present ideas similar to those offered by Jonathan Chapman (Chapman, 2015), stating in an interview that so-called *Super Normal* objects can be understood as holding qualities which go beyond visual judgement, and towards long-term discovery (Fukasawa & Morrison, 2007, p.99). The original list, with over two hundred products including paintbrushes, coat hangers, tableware and cutlery (as well as the 1933, *e60 stool* by Alvar Aalto) are predominantly



Nuovo Milano cutlery set. Ettore Sottsass for Alessi, 1985.

objects which will be regularly touched by the hand, and are therefore relevant for attention in this thesis. In the case of eating utensils, which serve as extensions of the hand, the importance of function as a means by which to transmit larger ideas is worth considering. Although function can be trumped by other qualities a product offers, as suggested by Donald Norman (Norman, 2005), for an object to become '*Super Normal*', widely adopted on a daily basis, then according to Morrison it will happen 'through use rather than design' (Fukasawa & Morrison, 2007, p.99). This build up of experience has been described as a permeating quality of aesthetic intent that is not restricted to visual appearance but concerns how the object is perceived through use (Picchi, 2006). This has been achieved, according to Fukasawa and Morrison, in the various *Super Normal* examples by Italian manufacturer, *Alessi*. Although *Alessi* are known for producing highly flamboyant and idiosyncratic products, the *Nuovo Milano* flatware by Ettore Sottsass, featured in the *Super Normal* collection, is perhaps more reserved and is in some ways the ultimate set of Western cutlery; Designed by a famous Italian designer, produced by the most famous of Italian homeware manufacturers, embodying a well established Italian food culture. These are not just eating utensils, they are Art, for sale at *Moma* in New York. The trouble with *Nuovo Milano* by Sottsass is that although he may have achieved his ambition to design cutlery which created 'a very gracious way of demonstrating awareness, respect and care for the basic act of nutrition' (Alessi, 1998, p.29), times have developed in the years since 1987. The traditional knife, fork and spoon symbolise the way in which food is eaten in the West, with illustrated versions of them still used on everything from cafe menus to road signs. If we recognise the continued growth of convenience in the thirty years since *Alessi* first produced *Nuovo Milano*, that we now see counter-cultural movements such as slow fashion (to oppose fast fashion) and slow food (to oppose fast food), then perhaps the knife, fork and spoon, as symbols, are outdated. Through slow-eating, we might see a greater awareness, respect and care for the basic act of nutrition.

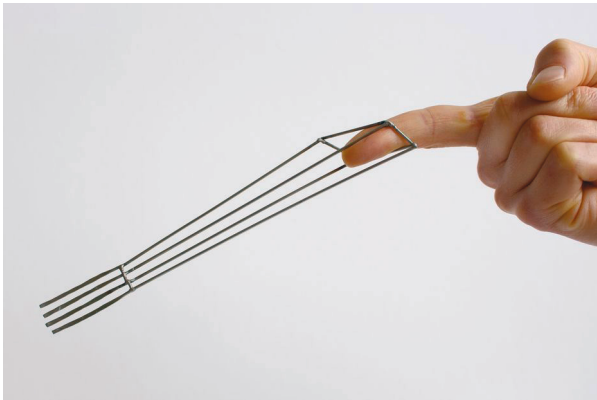
When working towards a design approach in a context to which so many people have a relationship, there must be a realistic counter-point to the problem. It is certainly unlikely that the knife, fork and spoon will be replaced, so it might therefore be more effective to aim for proposals which question the current situation as much as offering alternatives. The concept of *Super Normal* is relevant here in its quietly rebellious undertone. The timing of the 2006 Tokyo exhibition was suggested by Gerrit Terstiege as a response to 'everything that is superficially spectacular in product design' (Fukasawa & Morrison, 2007, p.10). While this comment came over ten years ago, in the context of design and publications at that time, this way of thinking can now be seen more regularly through objects in various forms of *Critical Design*, since first being established as a field by Anthony Dunne and Fiona Raby in the late 1990's. 'Critical' food/ design projects are quite commonly found online, offering speculative proposals while submitting to the enormous challenge of significantly changing deep-rooted Western eating habits. *Super normal*, then, while providing a comprehensive catalogue of objects that demonstrate a perfect meeting of form and function, also represent an attitude.



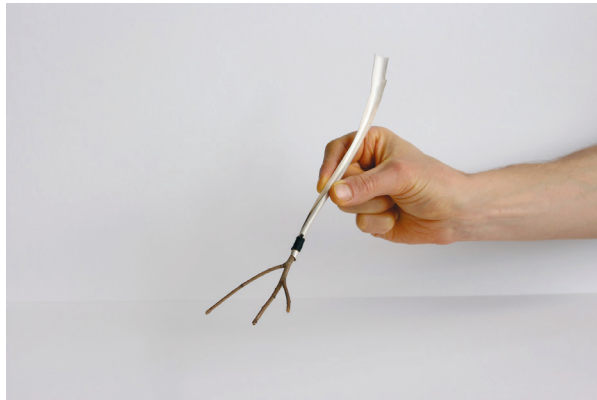
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Steinbeisser gastronomy event utensils/ Jouw 2012 - 2016.

1. Nils Hint. 2. Maki Akamoto 3. Nils Hint 4. Stuart Cairns 5. Maki Akamoto 6. Stian Korntved Ruud.

1.5. Translations

Eating as a multi-sensory theme

The need for eating habits to receive attention through design is evident in the growing research, journalism and discussion relating to the damaging effects of food systems mainly in Europe and North America (Sustainable Food Trust, 2016). Whether this conversation regards pollination concerns, land degradation or chemical use, it ultimately leads to individual food choices. It is therefore interesting to think of cutlery as often the final tools in the journey of produce- presenting an opportunity for reflection through experience within such moments. Interrupting the way in which food can be mindlessly consumed due to the familiarity and ubiquity of the knife and fork in Western dining becomes an opportunity to create a greater awareness and appreciation for the food. Perhaps also greater pleasure. Eating also serves as a fruitful platform in which to study materiality in the frame of James Gibson's taste/ smell, haptic, basic orienting, auditory and visual systems (Pallasmaa, 2012, p.45).

The combination of food and design has gained traction in recent years, leading to its emergence as an expanding field in its own right. This is seen both through design offices specialising in food (see Bompas & Parr), and also within design schools such as Milan and Eindhoven, which offer MA study programs on the subject of Food Design. This can be seen as an attempt to develop methodologies through education which can address the larger issues mentioned above, and contribute to sustainable, environmental, cultural and economic development both now and in the future. Many of the resulting projects can be found in development stages online as potential future realities. Whether these proposals take a constructive, critical, conceptual or commercial position, they all serve to highlight the need for discussion on the subject of food as perhaps the ultimate natural resource to be protected and maintained, both now and in the coming years. According to Marije Vogelzang, a well-known Dutch eating designer and head of the MA course at *Design Academy Eindhoven*, 'food is the most important material in the world' (Fairs, 2014). Eating, therefore, is a very relevant area in which to work as a designer, and as warnings and debate about future food challenges increase to generate concerns and traction, design could lead through products, systems and experiences in helping to establish new and improved Western eating habits. The perseverance of food brands that want to save our time by providing fast alternatives are eroding a fundamental, social activity from the human experience. Time spent cooking and eating is paramount, and worth noticing. As Brillat Savarin, author of the *Physiology of taste states*, 'Of all the senses though with which we have been endowed by nature, the taste is the one, which all things considered, procures us the most enjoyments' (Brillat-Savarin, 1825, p.20).

The knife and fork has remained largely unchanged for centuries, with variations in materials - a switch from silver to stainless steel - the only significant, adopted design modification in that time. Eating utensils are, however, currently being questioned by artists and designers, including the following examples.



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1. *Gôte* (Glass). Michel / Fabian, 2016.

2. *Leaf dessert spoon / Divided tasting spoon* (Stainless steel). Studio William, 2012.

Steinbeisser (Holland)

In 2012, Dutch design office *Steinbeisser* established an experimental gastronomy initiative in Amsterdam. They have been working to bring together renowned chefs and artists for one-off culinary experiences, in which all food and drink is vegan and supplied by local, biodynamic producers. In 2016 they launched *Jouw*, a website which features and sells conceptual cutlery and tableware which ‘don’t follow the normal rules of usability’ (Jouw, 2017). Work by international artist/designers is displayed, totaling 25 in the five years since *Steinbeisser* started. All objects must be hand-made using natural materials. The strong ecological limitations placed on the artist/designers adds to their intrigue and sense of uniqueness. Even though they are crossing over into the domestic market, out of high-prices occasional events, no two objects will be identical.

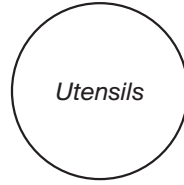
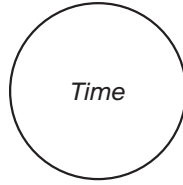
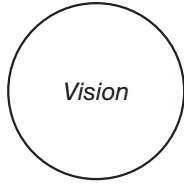
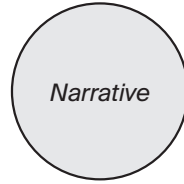
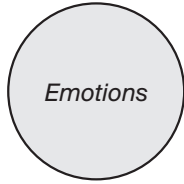
Michell/ Fabian (Switzerland)

Goûte is the result of a collaboration between artist/ chef Charles Michel and designer Andreas Fabian, following PHD research by Fabian called spoons and spoonness (Fabian, 2011). Their product is currently on the market and is said to heighten the pleasure of eating due to its memory-triggering sensation of licking ones fingers. ‘The sensory properties of the material (visual, tactile) can improve the flavour of food through the perceptual phenomenon of “sensation transference” (Goute, 2017). The product is available in glass and hardwood, hand-crafted in both materials, and as with some of the previous examples, shows the emergence of a new breed of eating utensils which crossover between restaurant and private home environments. This is a strong example of collaboration between thorough research and culinary skills, focusing more on sensations in the mouth than in the hands.

Studio William (England)

Studio William is a cutlery design company based in the U.K. Although they produce plenty of traditional knives, forks and spoons in stainless steel, they also show a move towards more conceptual eating utensils. The creative dining section of their website features cutlery which ‘supports new ways of cooking and thinking’, including ‘sensory forms’ and spoons with unexpected texture (Studio William, 2017). They aim to create cutlery which is an extension of the hand, while stimulating every sense. Through supplying a number of famous businesses and buildings, and winning several design awards, they have established a platform from which they can test and present alternative eating utensils to a wide audience. They remain in the familiar materiality of stainless steel. Although innovation is not necessarily dependent on a change in materials, it will be interesting to see if they experiment in that way.

These are currently some of the more recognised examples of new eating utensils moving into Western homes. They each represent different approaches, from artistic/ avant garde to industrial/ comfortable. *Goûte* is possibly the somewhere in between. *Steinbeisser/ Jouw* objects present a higher level of challenge to the knife and fork as well as being more playful. This, in itself, may add to the pleasures of eating through new tactile experiences.



1

2. *FEED*

(Theories and Views)



2.1. Food / Emotions

Added Ingredients

Eating is an experience in which we experience emotional reactions including pleasure, satisfaction and, occasionally, disgust. Leading chefs generally, although not always, aim to create positive emotions and experiences and use an increasingly sophisticated range of ingredients including sound and smell to achieve this. However, this modulating of sensory input may not be simply the pursuit of novelty, but rather a strategy which has been theorised in the design world. Therefore, it is not only possible to find examples of senses being manipulated in order to create changed aesthetics experiences, but to refer to them as examples of emotional design- used as a tool within gastronomy. As such, it suggests a meeting point between the work of Michelin Star chefs, and that of product designers- one which might be translated back, from the restaurant to the home. The science of understanding and manipulating the dichotomy of sensorial factors at play within a perfect meal has blended into the contemporary restaurant industry and manifested in collaborative examples between chefs, researchers and designers. One such example can be found in the 2010 dish *The Sounds of the Sea* (Blumenthal, 2015)- the combined effort of Charles Spence, a leading figure in the *New Science of Eating* (Spence, 2017) and Heston Blumenthal, head chef and owner of the *Fat Duck*, a three Michelin Star restaurant in Bray, England. It has become the restaurant's signature dish, and possibly an early, contemporary example of emotional food design. *The Sounds of the Sea*, pairing seafood with an oceanic soundscape, offers a cross-modal experience which has been said to illicit such emotional reactions from guests as to cause tears to be shed. Using a model proposed by Don Norman (Norman, 2005, p.39), it is possible to further assess this dish according to its visceral, behavioural and reflective qualities

Emotional dining

There is a psychological basis to emotional design, pertaining to three levels of the human brain which come into play as we navigate and process our experiences. Visceral; the automatic, pre-wired layer, Behavioural; processing everyday activity, Reflective; the contemplative part of the brain (Norman, 2005, p.21). According to Norman, at the visceral level, physical features - look, feel and sound - dominate. Thus, a master chef concentrates on presentation, arranging food artfully on a plate (Norman, 2005, p.67). Given the high focus on visual aesthetics in the context of Michelin star restaurants, and the use of amplified, auditory components in *The Sounds of the Sea*, its appeal is partly explained. But how does it fit across other levels of experience in an *Emotional Design* frame?

Behavioural: pleasure and effectiveness of use (Norman, 2005, p.39): The inclusion of an ipod to transmit sound means that the auditory function of the dish is accessed by means of an easily understandable and usable, secondary product- the white earphones. Positioned as they are, adjacent to the other components of the plating, leading out from a shell, they illicit curiosity and invite to be picked up and used in a way which is very familiar since the boom of characteristically coloured *Apple* products.



White bean, many garnishes, pillow of nutmeg. Alinea, 2011.

Reflective: self-image, personal satisfaction, memories(Norman, 2005, p.39): The sound of waves evoke nostalgia through memories, which can trigger the lasting, powerful emotions (Norman, 2005, p.65). There is a certain prestige in eating a famous dish at a famous restaurant- an experience which can be shared with friends- creating layered memories and a preferable self-image due to the exclusivity of the situation.

Although the issue of positive self-image is likely to be present in any dining situation in this type of restaurant, related to expense and the difficulty of placing a reservation (Norman, 2005, p.88), another reflective level effect is that of beauty, and here we begin to see a merge with earlier the earlier discussion of everyday aesthetics and moments (Saito, 2007). According to Norman, beauty looks below the surface and determines a persons overall impression of a product (Norman, 2005, p.88), and therefore a dish, or service. In this moment of reflection, there can arguably be a form of appreciation. Grant Achatz, head chef at three *Michelin Star* restaurant, *Alinea* in Chicago treats the emotional component of cooking food as a seasoning. 'You add salt, you add sugar, you add vinegar, you add nostalgia' (McGinn, 2016). To achieve this, *Alinea* focus on the sense of smell, purposefully tapping into the reflective level of their guests experience through an awareness that scent has always been important in terms of memory. 'If you can capture that', Achatz says, 'I think it's compelling' (McGinn, 2016). This approach can be seen in the *White Bean, many garnishes, pillow of nutmeg air* dish, with the inclusion of an unexpected object beneath the ceramic bowl; the infused pillow. From an experiential point of view, this could be described as a perfect combination of reflective and visceral beauty, perhaps trumping any difficulties encountered by the precariously balancing dish, creating surprise and joy as well as any subconscious aroma effects which might be personal to the guest. This kind of playful and emotional approach, underpinned by multi-sensory input, can be seen at *Alinea* as well as many other Michelin Starred restaurants around the world, and illustrates how emotions are being used to curate experiences (McGinn, 2016). Chefs are now designing experiences (rather than meals), with a range of senses, while designers are designing experiences (rather than products or services). Where chefs might once have focused primarily on taste, and designers may be focusing heavily on sight, these examples justify designing for a wider range of sensory factors, and support Don Norman's claim that by moving to further levels of user engagement, deeper emotional depth might not be reached. 'just as sweet-tasting candy is empty of nutritional value, so too is appearance empty beneath the surface' (Norman, 2005, p.65).

Emotions as a tool

Pallasmaa's views on senses within design are reflected here, by showing that in a conversation about materiality (buildings, objects, food or otherwise) and experience, you are also talking about senses. The examples above show that emotions can be a key to connection in a moment/ reflection, and this can be triggered by modulating sensory input. By searching to provide such experiences for his guests, and by employing avant grade/ experimental means to do so, Grant Achatz includes the need to question traditional tableware, asking 'why do you have to eat with a fork or a spoon, and why does it have to be served on a plate or in a bowl?'(McGinn, 2016). In this way, he opens up a request for tableware designers to offer a blend of sensory/ emotional variety. On a behavioural level, since touch and feel are critical to our behavioural assessment of a product (Norman, 2005,



Edible Balloons (a helium-filled dessert), playing on the memory of childhood birthday parties. Alinea, 2016.

p.79), the role of eating utensils is possibly critical as the bridge between the food and the tasting experience, but there is suggestion that function is not necessarily vital if other emotional qualities are in place. This might be the case with the *Alinea* pillow. *Emotional design* is connected to visual aesthetics in Norman's chapter titled 'attractive things work better' where he suggests that physical beauty creates positive emotions (Norman, 2005, p.17). These emotions can lead to a bond that can overcome (behavioural) functional design flaws and move that product directly to the reflective level, where it can represent other personal values and trigger memories, showing a tension between rational and emotional judgements also mentioned in Alvar Aalto's choice of materials in part 1.3. The act of eating is most likely to stimulate viscerally, being as it is an entrance to sounds, shapes, tastes, smell, temperatures and so on (Norman, 2005, p.30)- sensory input which is not directly accessed through reflective thought. However, reflection does occur in response to this input 'as our experience unfolds in time' (Saito, 2007, p.228). In these unexpected moments, a slowing of pace and awareness of time might occur.



1. Filippo Tommaso Marinetti at *The Holy Palate*, circa 1932.

2. *Bompas and Parr*. Futurist recipes, Tate Modern, 2009.

2.2. Eating / Experience

Recipes

‘No more knives and forks!’ - Filippo Marinetti

Although all senses are at play within any eating experience, they can be isolated and prioritised within a curated meal. Focus on ‘aesthetic sensations’ (Marinetti, 2014, p.50) in a fine dining context is largely accredited to Filippo Marinetti, and chronicled in his 1932 book *The Futurist Cookbook*. At the *Holy Palate*, his restaurant in Turin, the underlying goal may have been to cause controversy as much as pleasure, with goals such as the banning of pasta! (he claimed it led to ‘pessimism, inactivity and neutralism’) (Marinetti, 2014, p.34), but many of the dishes can be used as examples of sensory design and are therefore relevant for this thesis. To expand on the previous examples of sound (Blumenthal, 2015) and smell (McGinn, 2016), two of the eleven factors that must be present in the perfect meal according to Marinetti were:

5. ‘The use of the art of perfumery to enhance taste. Each dish must be preceded by a perfume that will be removed from the table using fans’ (Marinetti, 2014, p.38).

8. ‘Measured use of poetry and music as unexpected ingredients to awaken the flavors of a given dish with their sensual intensity’ (Marinetti, 2014, p. 39).

The word ‘ingredients’ is particularly worth mentioning here, indicating that Marinetti thought about senses in a similar way to Grant Achatz (McGinn, 2016)- as an active component for his guests- and shows that ‘many of the avant garde culinary ideas first suggested by the Italian Futurists have been rediscovered by modernist chefs’ (Spence & Piqueras-Fiszman, 2014, p.363). Regarding the sense of touch, ‘the abolition of knife and fork in favor of flexible combinations that can deliver prelabial tactile enjoyment’ often took the form of ‘food sculptures’ (Marinetti, 2014, p.38). Here, the *Aerofood* would be eaten with one hand, while the other hand ‘received tactile input from various materials including velvet, silk and sandpaper’ (Marinetti, 2014, p.106). Three sensory categories are listed in the *Futurist Cookbook* as ‘Conprofumo’ (smell), ‘Contattile’ (touch) and ‘Conrumore’ (sound) (Marinetti, 2014, p.231) and suggest a systematic use of them within eating as a multi-sensory, radical, artistic platform, with the potential for expression across all senses simultaneously. Through ‘absolute originality in the food’ (Marinetti, 2014, p.36), ‘the perfumes, music and tactilisms which season the Futurists foods brings about that playful and virile state of mind indispensable after lunch and at night’ (Marinetti, 2014, p.41). In this way, an unconventional and conscious use of senses, in the shifted context of a 1930’s European restaurant, was a large part of what gained the *Holy Palate* its artistic notoriety.

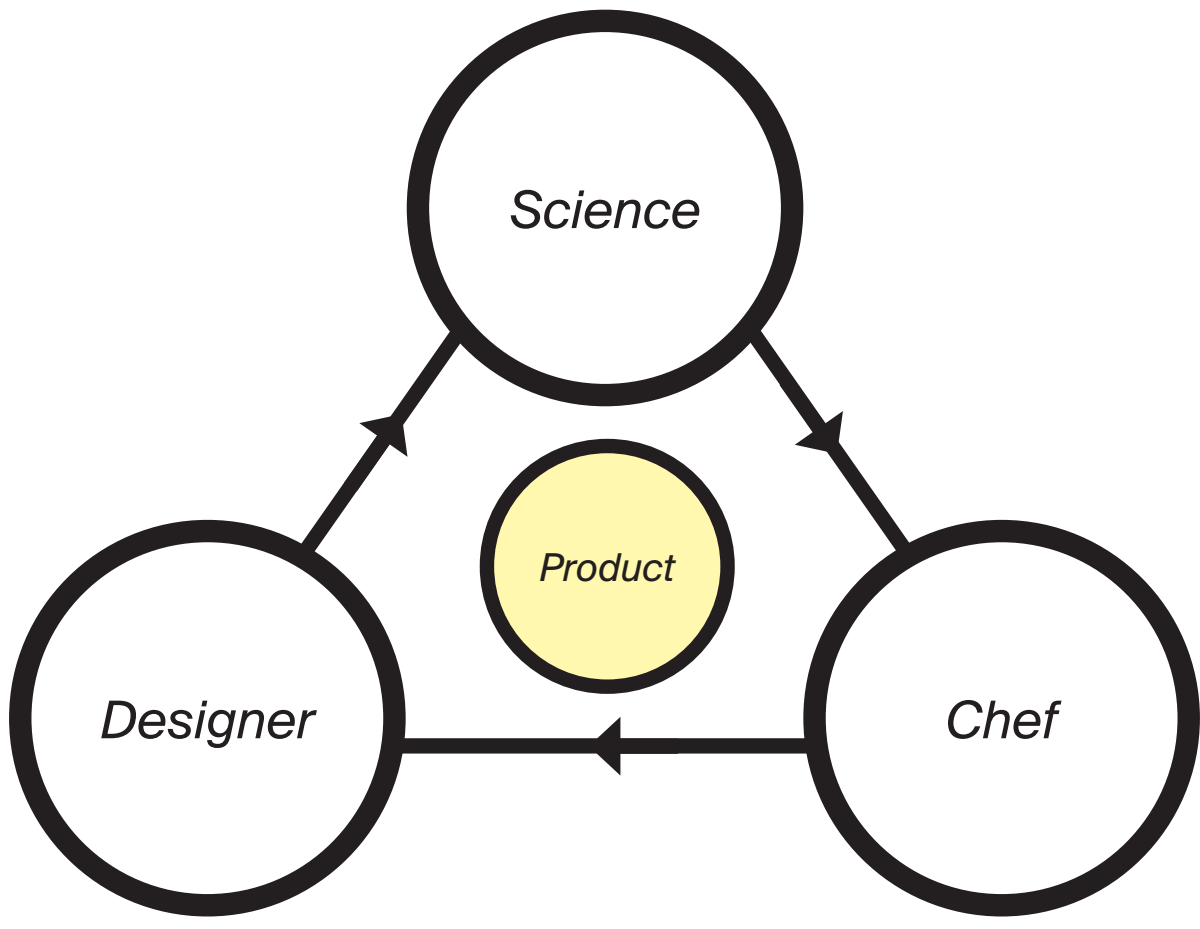


Experimental eating utensils exhibited at the *Science Museum*, London, 2015.

‘With his tactile dinner parties, the famous Italian Filippo Marinetti was perhaps the first to think creatively about the importance of touch and tactile stimulation to the act of eating’ - Charles Spence

Futurism has been defined as ‘the religion of speed’ (Marinetti, 2014, p.32) and is therefore contrary to an interest in slowing the act of eating in favor of rapid presentation between one dish and the next. *The Futurist Cookbook*, however, is often referred to within contemporary scientific research, as an early example of the growing understanding of the role of touch, and its exploitation in everyday eating as well as in the context of experiential dining (Spence, Hobkinson, Gallace, Piqueras-Fiszman, 2013). Much of the research in this field goes under the name of *Gastrophysics* and has been cited as the study of ‘everything else’ (Davis, 2017) at play while we eat and drink. The logic here is that ‘while it is certainly true that gustatory and olfactory information have a central role in determining our everyday experience of food, it is important to note that they do not constitute the whole picture’ (Spence & Shankar, 2009, p406). ‘Everything else’ describes any other aesthetic factors beyond the food itself, including the environmental conditions in which the eating is taking place as well as the design of furniture, lighting and crucially as potential information within in this thesis, the objects used to eat. Such findings, if understood and applied, are suggested to demonstrate some of the many ways in which chefs, artists and designers can enhance the diner’s eating experience in innovative ways (Spence et al, 2013). In addition to *Gastrophysics* studies investigating sound (Spence & Shankar, 2009), another article which closely relates to ideas seen at the Holy Palate, and the sense of touch, found that the perceived staleness/ freshness of digestive biscuits varied when served in a container ‘with a rough sandpaper finish, compared to being served in a container with a smooth plastic feel’ (Spence et al, 2013, p.4). The same biscuits were considered to be fresher when accompanied by the rough, sandpaper texture, raising the thought that while what we touch with our non-eating hand shouldn’t influence our rating of food, ‘apparently it does’ (Spence, 2013, p.124). Findings such as this afford a playful potential when taking a sensory design approach within the context of eating.

Weight has also been studied, and in the context of cutlery, can be found to surprisingly change perceptions of food. Participants in one case were seen to like the taste of yoghurt, and consider it to be of an overall higher quality when eating with a heavier spoon, than with a lighter one (Spence et al, 2013). The same findings have been found with wine bottles, glassware and even restaurant menu’s (Spence et al, 2013, p.3). Although these findings by no means suggest a universal rule, instead depending on the ‘need for touch’ which varies from person to person (Spence et al, 2013, p6), it does suggest some general ideas of how some of us associate the weight of objects with quality. This sense of quality might have been previously experienced through use of an expensive jacket, or perhaps a piece of jewelry, and it is apparently this ‘sensation transference’ that, in the case of cutlery and tableware, we might be likely to move over to the food itself (Spence et al, 2013, p5). This is important as it shows a theoretical link between materiality, senses and experience in the context of food. However, it is not only the weight of an object that transmits a sense of quality, but also the general feel of the material- ‘that is, it’s quality’ (Spence et al, 2013, p6). This sense of quality might be perceived in the case of bone china or crystal glass, and overcomes comparative, physical lightness.



Given the references to Filippo Marinetti in *Gastrophysics* articles (Spence et al, 2013, p1), once avant garde experiments at the *Holy Palate* are now being more scientifically tested to see if there are potential benefits of modulating the sensory factors in the context of food, beyond novelty. These might become more commonplace in everyday eating and bring heightened sensory ingredients into the present day through tableware design that applies reliable, albeit variable findings. Part of the introduction to one *Gastrophysics* study includes the statement, 'Although the different sensory modalities are most commonly studied separately, our everyday perception of the world is very often multi-sensory'. (Spence & Crisinel, 2010, p.1). This neatly summarises the boundless landscape that is eating, exactly because it involves all human senses. For that reason, it goes clearly beyond vision, and could explain Marinetti's interest in it as a Futurist artistic platform. In the 1930's, he claimed that 'everything in modern civilisation tends towards the elimination of weight, and increased speed' (Marinetti, 2014, p.65), but perhaps in our modern, western civilisation of 2017, we have been through Marinetti's future and now need to slow down again. *Gastrophysics* provides theoretical clues with which to alter aesthetic experiences by design, while suggesting the method of collaboration and experimentation between chefs, designers and artists, 'blurring the limits between one field and another' (Spence et al, 2013, p12).



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1. *Scallops cooked above burning juniper*. Fäviken, Sweden, 2012.

2. *Extreme Stems (2875m)*. Central, Peru, 2015.

2.3. Abstract Values

Storytelling

'Food is the most important cultural manifestation we have, because we all have to eat.' - Magnus Nilsson

If we think about a restaurant such as *Fäviken* in Sweden as a product or service, it is using storytelling as a strategy by virtue of its approach to the menu it offers. All vegetables are grown in, or foraged from, the vicinity of the restaurant and stored in a root cellar. This ancient preservation system has been possible due to research being conducted by head chef Magnus Nilsson, allowing him to learn and deploy methods which may die out if not maintained. This knowledge, when put into practice, ensures a year-round supply of vegetables in a region where nothing grows for eight months of the year. The preservation techniques- pickling, fermenting etc- bring a 'complexity' (McGinn, 2015) to the dishes which cannot be replicated without such a craft process. This also allows Nilsson to tell a story throughout his menu, which reflects seasons and time in dishes such as '*Cottage Cheese Pie with preserved mushrooms*' (Winter) and '*Trout bog butter and porridge of lichen*' (Fall) (McGinn, 2015). Breaking down the story of the land into four quarters makes a relatable platform, and is reminiscent of the way in which Japanese tea bowls vary in size, shape and colours depending on the time of year in which they are being used. The tasting menu is deployed as an agent of memory, in which abstract scenarios can be woven into familiar narrative sequences (Chapman, 2015, p.122).

At *Central*, in Peru, Head chef Virgillio Martinez tells a similar story of ecology through his food, but this time takes a wider perspective. The vertical menu was inspired by the way in which inca tribes viewed human existence (Jeter, 2017), and offers dishes with ingredients which have been foraged from all 17 regions of Peru, at the various altitudes in which they lie. The twenty plate tasting menu then, will take you on a journey through the country from dishes named '*-10M: Close Fishing*, to *860M: High Jungle*, to *4000M: Huatia with Andian herbs*. Such foraging is made possible due to the research wing of the restaurant, which stores and catalogues samples, many of which have not been registered for consumption but rather have been used for healing or medicinal reasons for centuries. This shows a deep interest in preserving knowledge, respecting produce and in widening contemporary understanding of what food is, or can be. This is representative of values widely seen in such restaurants (Jeter, 2015). Many of the cooking techniques are the result of expeditions within Peru, such as the huatia potato, which is buried in the earth for cooking. For his capital city guests from around the world, this creates a connection to the land (Jeter, 2017).

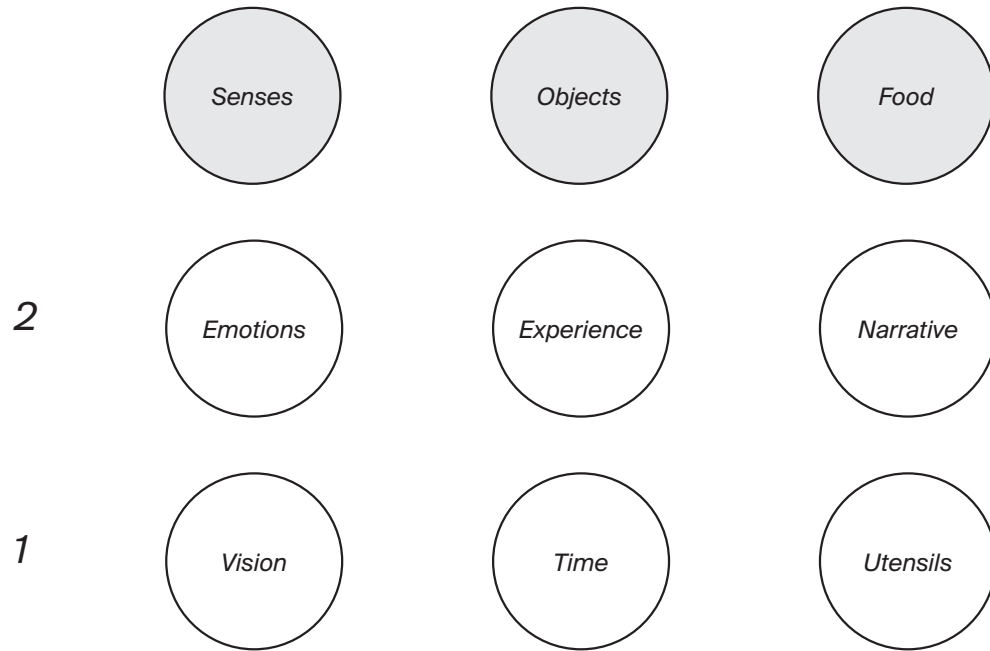
Both of these examples could be compared to culinary design groups such as *Steinbeisser*, being as they are examples of challenge and artistry with natural materials, while showing that beauty in the context of eating can have many layers and meanings.



Vegetables on a fence. Blue Hill, New York, 2012.

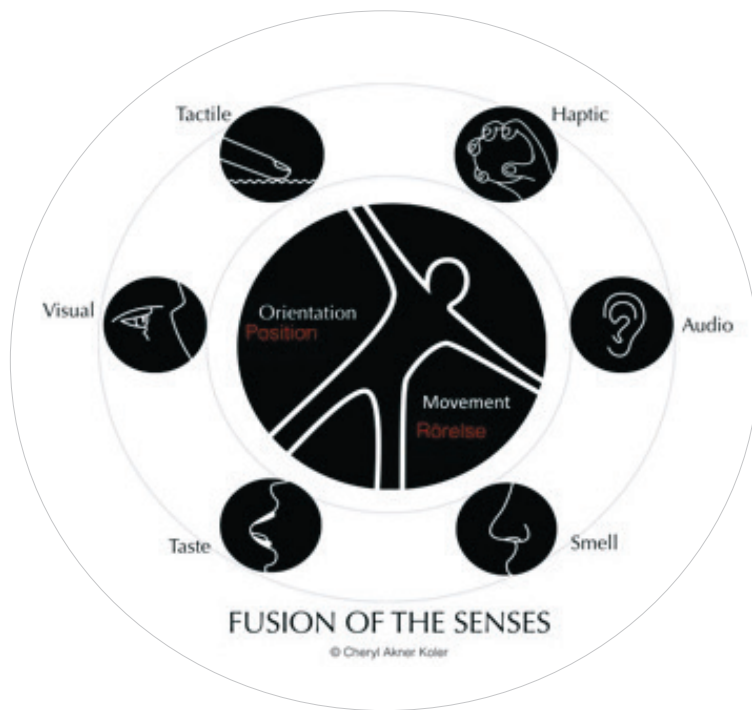
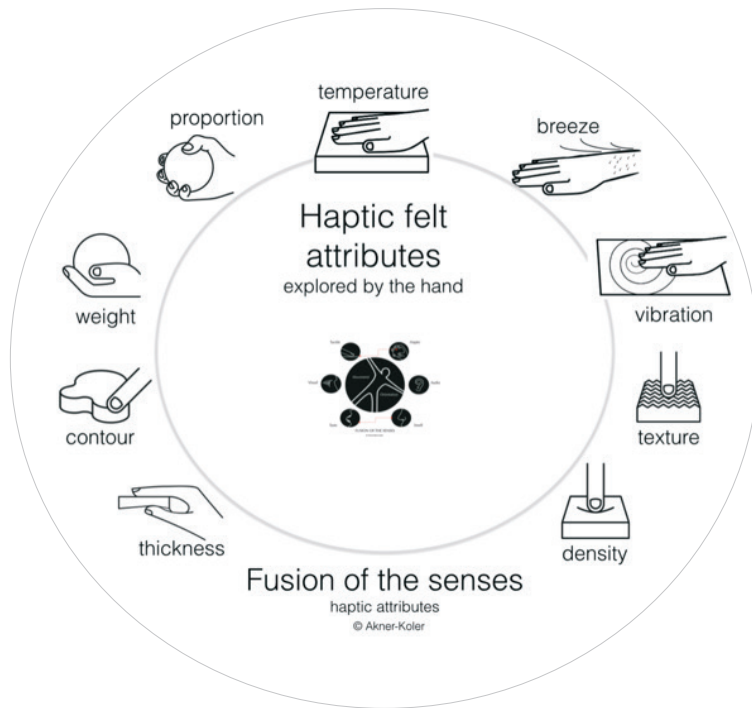
In addition to showing how dishes are being used to create experiences and geographic narratives, *Michelin Star* chefs often talk of a deep respect for produce with statements such as ‘There is no such thing as good food without good ingredients’ (Jeter, 2015). This attitude is at the core of *Blue Hill*, a restaurant and farm in New York, at which the head chef and owner, Dan Barber- has created an ecosystem of symbiotic relationships between land, seeds, animals, grass- in pursuit of food quality (Jeter, 2015). He is leading figure in the so-called farm-to-table movement (Jeter, 2015) in which dialogues about the origins of food become a natural part of the experience for guests. This can be seen in the *Vegetables on a Fence* dish, with a distance which can be measured in metres instead of miles between the source of the food and where it is eaten. Of course, not everyone has the ability to experience this first-hand, but thanks to the heightened profile of chefs in recent years, in which ‘they are regularly compared to artists and philosophers (Kisner, 2016), chefs are able to communicate about ecology beyond the limits of their kitchen. Increasingly, sustainability ideals relating to their work can be appear through documentaries and other forms of media. Dan Barber states that ‘We need to redefine our definition of fine dining, to help us in a redefinition of everyday eating’ (Jeter, 2015), stirring debate for better food systems in a broader context. Given the increasingly influential position of chefs, the public is listening from a distance, if not there to taste.

The Creative industries have been defined as advertising, architecture, art, crafts, design, fashion, film, music, performing arts, publishing, R&D, software, toys and games, TV and radio, and video games (Howkins, 2002), and have an influence on our understanding of the world more than any other industries (Hesmondhalgh, 2013). Given the level of creativity and ethical practice seen in *Michelin Star* restaurants, perhaps gastronomy should be on the list too. If we think of chefs as designers with food, collaborating with farmers to ‘breed the grain for flavour and functionality’ (Jeter, 2015) they seem to be currently in a position to talk about the use of materials more directly than the designers of objects. This is where the combination of the two shows so much potential. The craft of their work is ‘not to be understood merely in a materialistic sense’, and presents values which can be translated into other fields (Yanagi, 2013). ‘There are other disciplines that we can draw on for inspiration’, states Achatz (McGinn, 2016). It is possible therefore, for design to take influence from the field of cooking.



3. *YIELD*

(Case Studies: nordic versions)



3.1. *Haptica*

Cheryl Akner-Koler is professor in theoretical and applied aesthetics at the industrial design department of *Konstfack- University of Arts, Craft and Design* in Stockholm, Sweden. She has developed a model called fusion of the senses within a research project called *Haptica* (Akner-Koler, 2017). During a Skype meeting in April 2017, she expanded on her drive to include haptics as an addition to the 'normal range' of senses (Akner-Koler, 2017). Her work to emphasise the haptic sense, which 'physically engages us with the world and people around us' focused at the time of interview on nine attributes experienced through the hand: proportion, weight, contour, thickness, density, texture, vibration, breeze and temperature (Akner-Koler, 2017). The list is ongoing, and she states that the feedback we gain through touch has the potential to awaken our emotions through orientation and movement (Akner-Koler, 2017). *Haptica*, then, is an extension of touch, to do with grip, and is a sense we experience everytime we use our hands to eat. This suggests that changes in expected materiality would change that aesthetic experience, by 'knowing through the senses' (Akner-Koler, 2017).

Focus on expanding our understanding of haptics from a design point of view, as Cheryl explained, is motivated by the fundamental role of the hand as part of our aesthetic experience. 'If we were not working people who produced homes, clothes and food, experiencing the haptic qualities of those materials with our hands, we wouldn't have the brain we have. We wouldn't have the complexity' (Akner-Koler, 2017). In the context of this thesis, *Haptica* became a way of thinking that supports focusing on the materiality and sensory/ activating properties of physical products, both for the designer and the user. This is reinforced by Cheryl's conviction that, 'if we are more passive, then we are less human' (Akner-Koler, 2017). In the context of food, being passive could mean being less actively involved in the social and creative processes around cooking and eating.

Haptica is a three year research project in collaboration with culinary artists and researchers. She says that 'the design world could learn from the culinary world, just to get an understanding of what they've excluded' (Akner-Koler, 2017). I understand this as something to do with the hands-on approach that chefs need to continue to have, which to some extent has been replaced by technology in the case of design. As a chef, 'you have to know so much about your materials and it takes a long time' (Akner-Koler, 2017). The same is possibly true of designers, and points towards practice with materials.



1



2

1. *Hold Me*. Porcelain, 2014

2. *Rocky*. Soap Stone, 2016

3.2. *Odd Standard*

Constance Gaard-Kristiansen and Tonje Sandberg are ‘makers of restaurant tableware’ based in Stavanger, Norway. They started *Odd Standard AS* in 2013 and have since been featured in *Wallpaper* and *D2* with headlines such as ‘Det holder ikke lenger med en hvit tallerken, Nå skal serviset også være et kunstverk’ (‘It is no longer enough with a white plate, the crockery must be a work of art’) (Habro, 2015). They also supply the domestic market through pop-ups, and during a Skype interview in March 2017, I was interested in the process behind their work. ‘Sometimes it starts with a product or a function, other times it starts with a material or a manufacturer.’ (Gaard-Kristiansen & Sandberg, 2017). This has led to supplying restaurants with objects before the chefs have seen what they will be, and is an example of food being inspired by design, in Norway. In 2014, *Lysverket*, a restaurant in Bergen, were planning to have a closed dinner featuring a chef from California, for which *Odd Standard* supplied over one hundred prototypes in varied series. One of these objects was a cone-shaped form made out of porcelain, called *Hold Me*. ‘They served bacalau in them and this was interesting because it was warm, and unexpected because of the shape’ (Gaard-Kristiansen & Sandberg, 2017). In this case, the experience is contrary to what might be expected because of associations with the form of the object. They were held in one hand, like an ice cream cone, and according to Tonje, ‘just because of the shape you expect it to be cold’ (Gaard-Kristiansen & Sandberg, 2017). This, combined with the fact that the objects had to be passed directly to the hand of sitting guests, also made for an unusual interaction. Normally, dining objects are placed directly onto the table.

Many *Odd Standard* objects focus on attributes found in *Haptica*, inviting touch ‘maybe because they have a materiality which is different to what you might be used to’, (Gaard-Kristiansen & Sandberg, 2017). Others contain sensory information which have appeared in *Gastrophysics* studies:

‘Weight is something that is considered to be to do with quality, and the quality of the object you eat from gets transmitted to the food that you are eating. So if you think it tastes nicer, then it tastes nicer. Sometimes we try to give an impression of heaviness, through thickness. When it comes to ceramics or porcelain, it is usually thinness that means it is of higher quality’. (Gaard-Kristiansen & Sandberg, 2017).

When explaining their drive to produce more new products, they say it because of the chance to ‘inspire restaurants to push forward’ (Gaard-Kristiansen & Sandberg, 2017). This, in turn, inspires them. As Constance sees it, the objects are ‘not really finished until we have seen them in a restaurant, in use’ (Gaard-Kristiansen & Sandberg, 2017). In this way, design is part of defining what is served and how it is served, and points to the suggestion of the objects being an active ingredient in the process of preparing food. Conversely, this completes the object, and can happen indefinitely as the food changes, suggesting an open-ended approach.



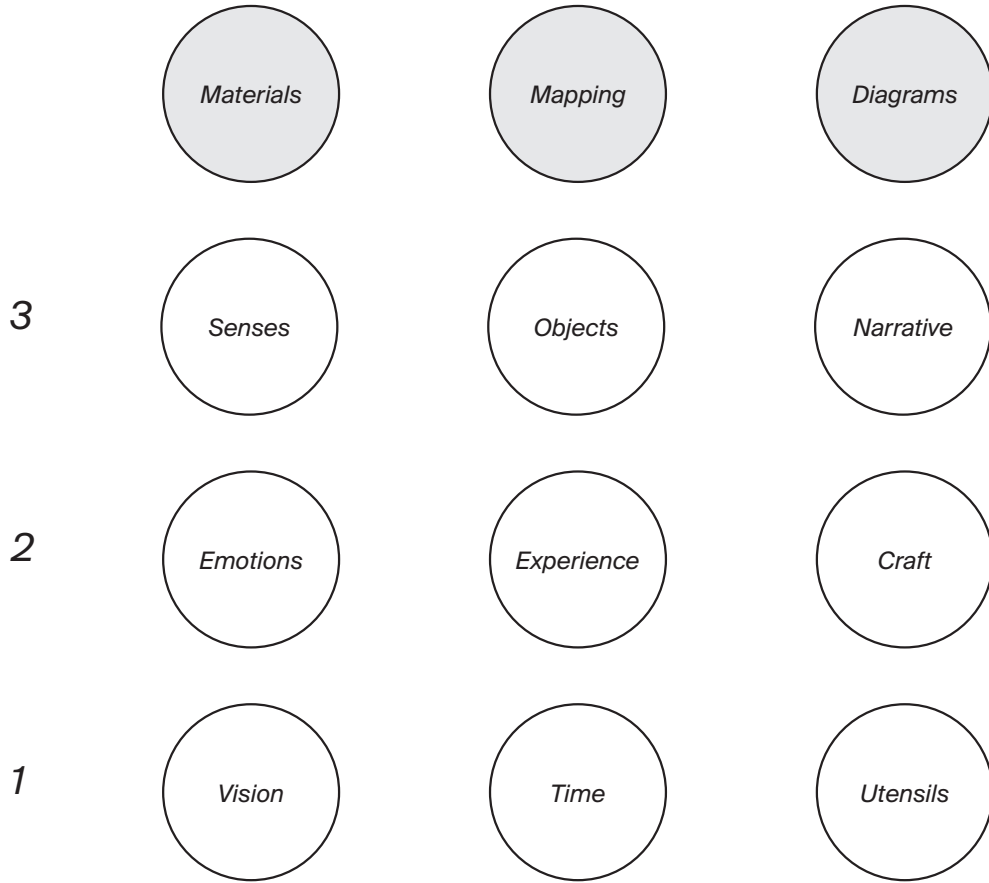
Kamai table setting, 2017. Knife, fork, chop-

3.3. *Kamai*

During a series of meetings with Jeppe Sørensen, head chef at *Kamai* in Oslo, a range of themes were discussed including his approach to produce and the kind of experience he is looking to offer through his work. Many meetings points between the role of chefs and designers were identified and Jeppe had a direct influence on many parts of my design process. The mission statement on the *Kamai* website reads, 'Vårt utgangspunkt er basert på det asiatiske kjøkkenet, der vi vet at bærekraftige, friske råvarer, tradisjon og innovasjon skaper kulinarisk magi'. (Our starting point is based on Asian cuisine, where we know that sustainable, fresh produce, tradition and innovation create culinary magic'). When first sitting to eat at *Kamai*, the table will be dressed with glasses, napkins as well as both chopsticks and a knife and fork. This is a reflection of the menu, which blends a Nordic take on Peruvian / Japanese fusion known as *Nikkei* food, and leaves some space for interpretation. Jeppe has brought a willingness to challenge his guests in Oslo since moving from Copenhagen. This can involve unusual use of tableware, 'the underside of a plate is good for plating' and he is interested in various ways of serving communal food which encourage social interaction, such as 'one central dessert which can break into many smaller surfaces'. (Sørensen, 2017).

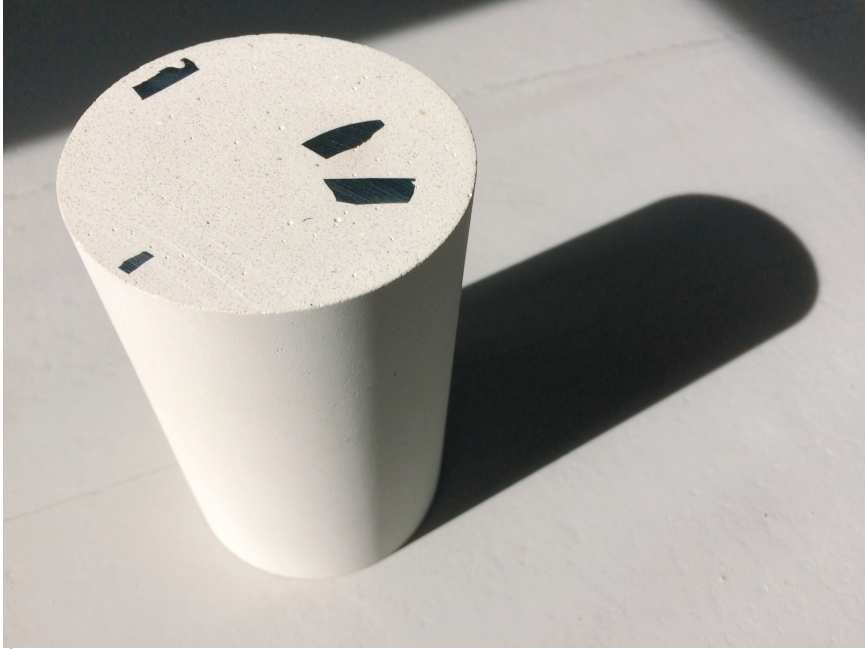
Two of the main insights coming out of our conversations were the degree to which he, and in his opinion many chefs, are influenced by the other components which make up a meal, and the degree to which he respects his produce. The assumption can be that newly developed recipes are paired with wine, plates, a position on the menu etc after they are ready. This is not always the case. 'Sometimes, the wine comes before the food and inspires me to experiment with ingredients' (Sørensen, 2017). Jeppe says that just as much time is spent assessing the plate he is served food on in a restaurant, as the food itself. This, and natural objects such as rocks and branches can spark his creative process, and lead to ways his dishes are presented. In a similar way to *Odd Standard's* experience with restaurant clients, freedom for designers to suggest objects in collaboration with chefs seems possible.

He often tries new dishes on guests by giving complementary trial versions in order to get feedback, and suggested that the same could be done with design prototypes. There is a similarity in this kind of iterative approach when testing and refining handmade objects, which Jeppe also recognised. You have to remember that there are 'no rules' with cooking and you have to be willing to try new things, and fail sometimes (Sørensen, 2017). The same is true of design.

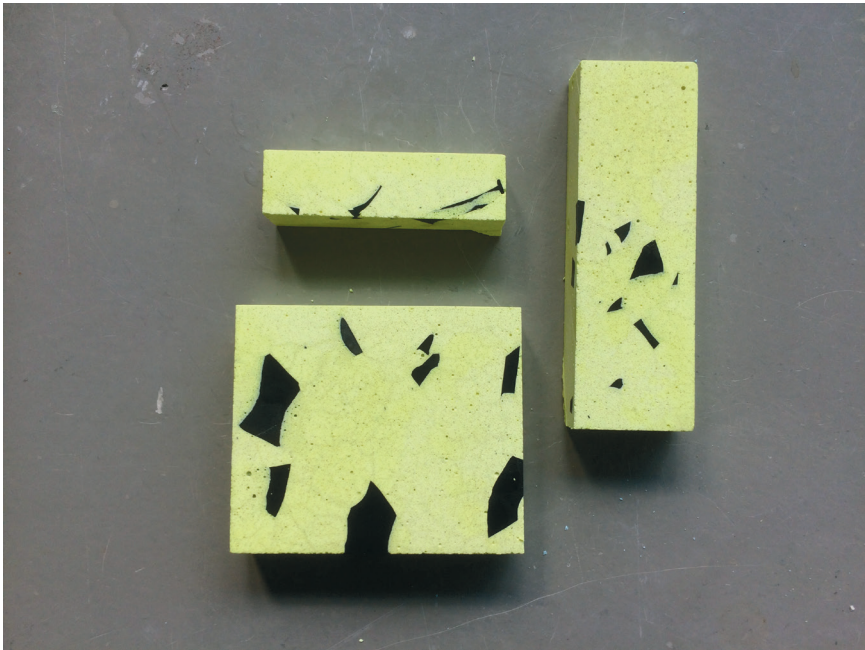


4. *PREP*

(Methods)



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4.1. Artistic Research

Heavy surfaces

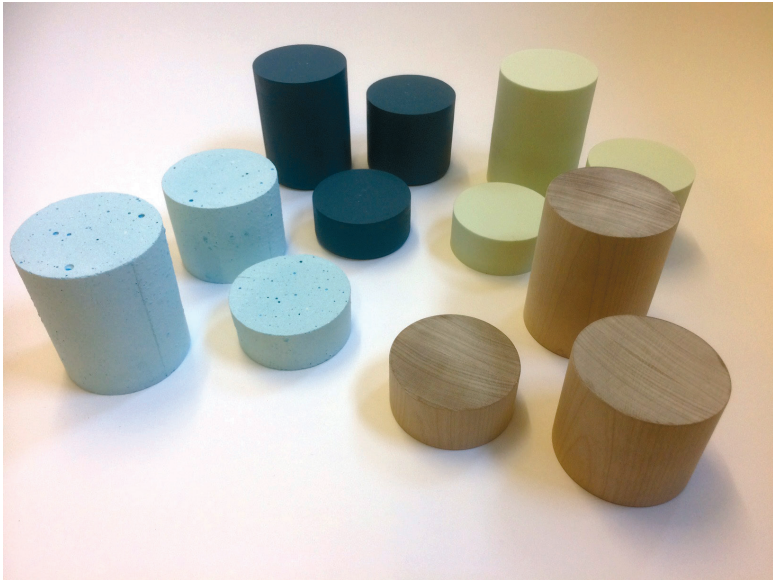
Exploration with concrete, pigment and ceramic pieces based on the subject of weight, and how that can be used as a property within the design and materiality of objects related to food. Concrete is heavy, and also provides the feeling of weight through material density. Broken ceramic is recycled and used as a pattern-making aggregate, leading to a discussion with Jeppe about the visual tension which might appear between the surface object and the food

1. In reference to Odd Standard, who made the point that physical weight is not always felt by guests at the restaurants they supply, due to the typical situation of service staff carrying and placing dishes on the table. The visual weight of an object can vary between sight to the experience of it in your hand, the use of bright colour may alter aesthetic associations to material.

2. Early experiment on a surface which could move apart and be re-joined, as suggested by Jeppe for desserts. Different thicknesses made variations in sound against a spoon.



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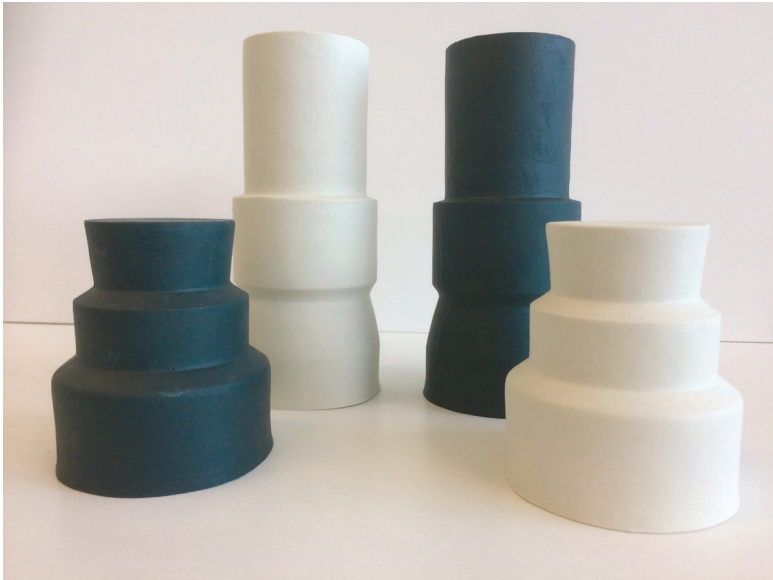
Experiments focusing on new interactions around the table, as well as an interest in objects which encourage eating with the hands. This was inspired by the tactility of food which is talked about in *The Futurist Cookbook*, and is the beginning of a system of small dishes which can be changed and fitted onto different bases. The bases are in a range of materials, and would provide alternating weight textures, and potentially temperatures.

The complete set, which could be developed and added to over time, is meant to be allow users to find preferred combinations. I also worked with a suggestion found in *Gastrophysics* that a combination of the colour blue and rough texture could add to a perception of salt.

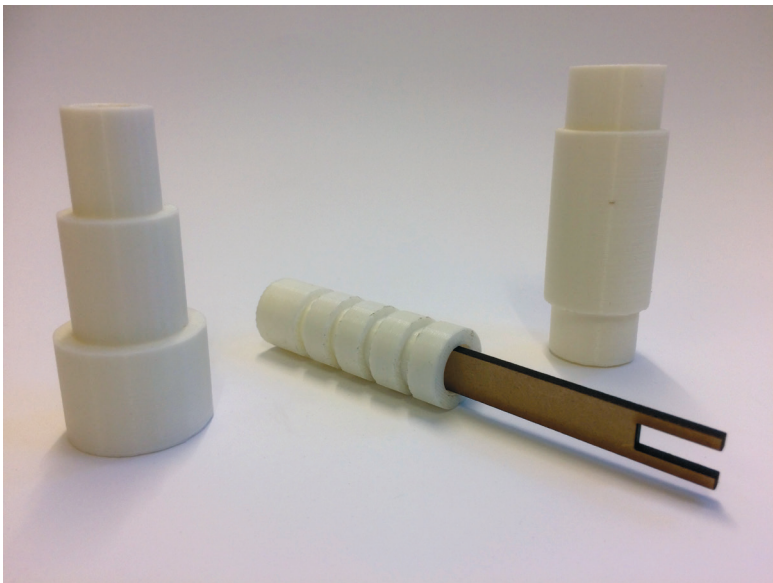
1. The base and 3D printed container in relation to the hand.
2. A range of bases in concrete (salt experiment), birch and modelling foam.
3. Birch bases in various heights (and weight) with multiple 3D printed containers.



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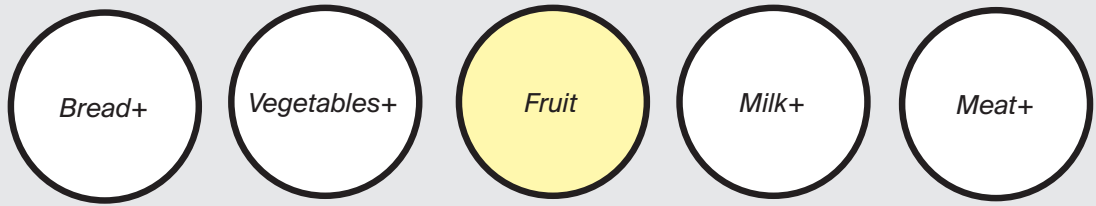
3

Tests showing exploration on finding common a relationship between different objects using one material with shape and volume variations. The initial forms were decided by how they felt in my hand.

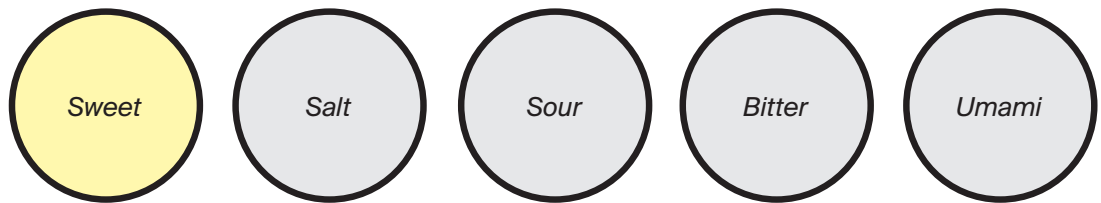
1. Birch turned on a lathe as experiments for objects which can stand in two directions or stack.

2. Birch objects translated into ceramic. These also represent testing with ceramic stains and because they are hollow, could be used to conceal or contain food. In the case of concealing, the changing forms could relate to different contents beneath.

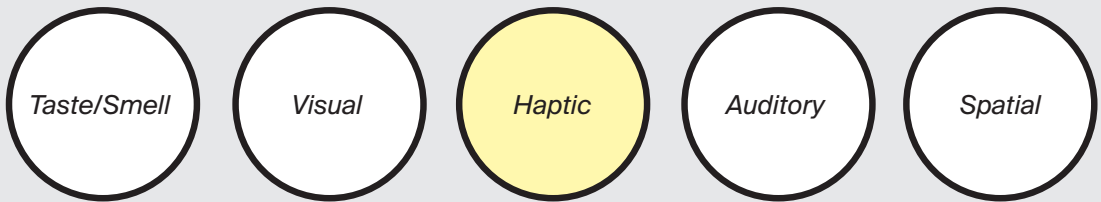
3. Similar forms are 3D printed and used on the idea of one utensil with inter-changeable handles- allowing for various haptic experiences within a system. This began to move the project away from surfaces and towards utensils due to their relationship with the hand.



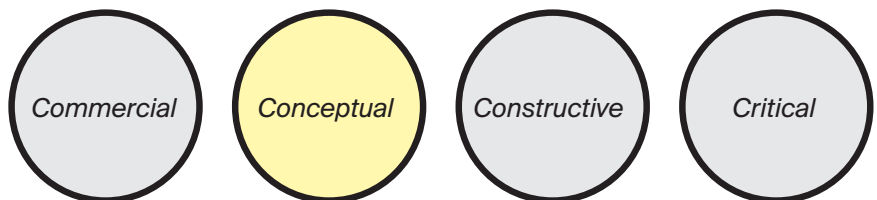
Food *What is the core type of food are you designing for?*



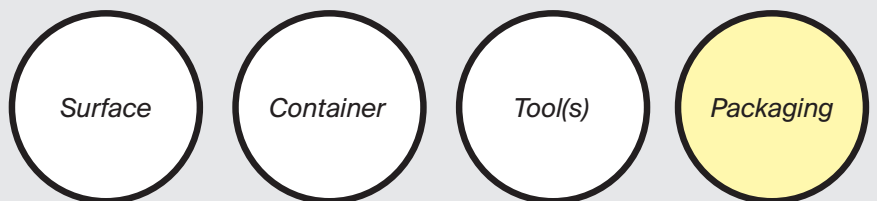
Taste *Which flavour characteristics does it have?*



Sense *Which sense(s) will you focus on?*



Context *How/ where will the product be positioned?*



Object *How will the dish be presented/ consumed?*



Design *for the act of eating.*

4.2. Mapping

AOE

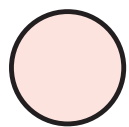
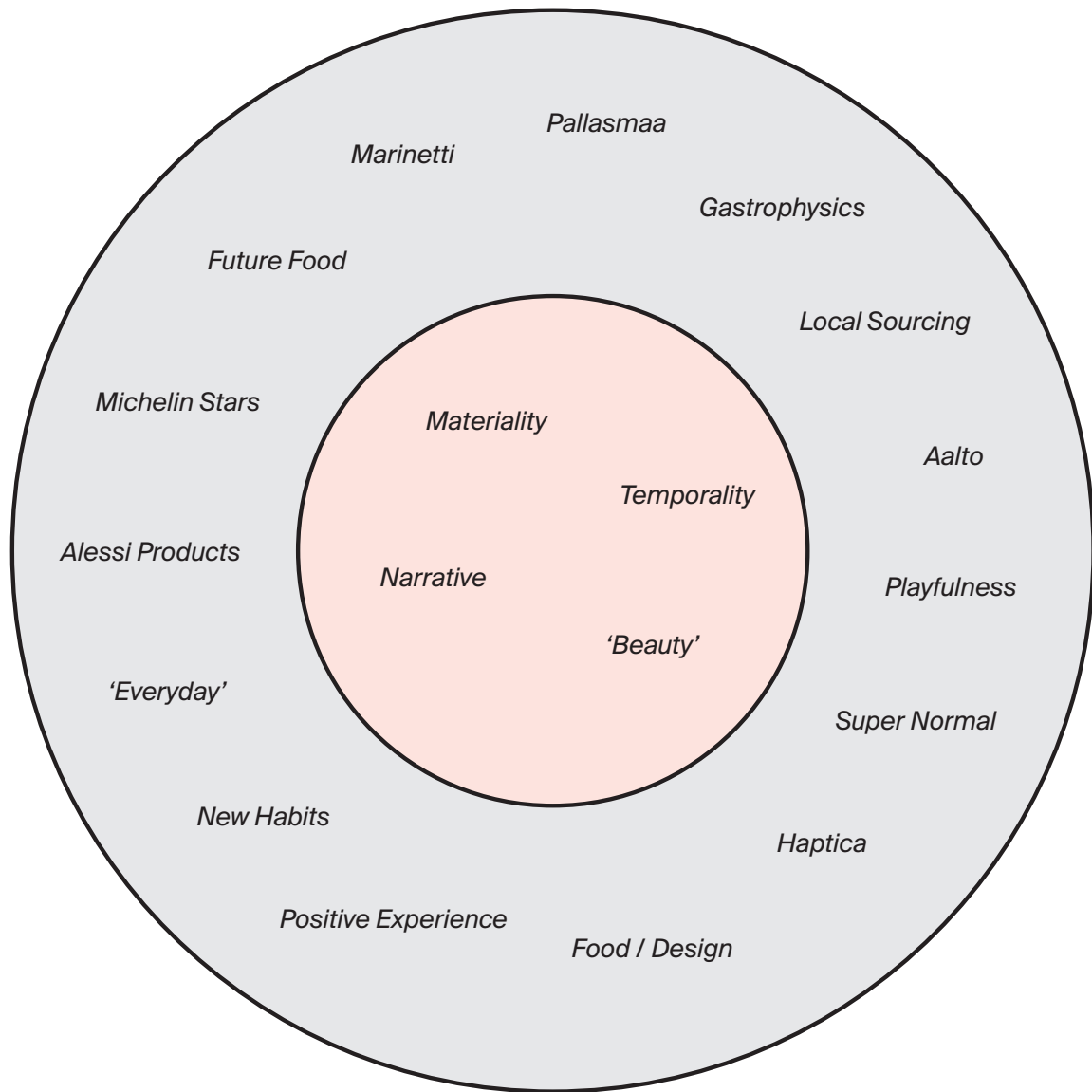
The opposite page shows the Act of Eating method I designed and used as part of my process. By a certain point I had gathered quite a lot of information, which I initially mapped so that it would be organised in a logical progression. I realised after some development and refining that it could be used as a tool beginning with a food type, before including other parameters either for a specific problem, or for investigation. I chose the words container, surface and tools in order to avoid more generic words which might limit the imagination or have preconceived notions of form (for example bowl/ plate/ spoon) or materiality. I included packaging despite it not being a focus for my project, to show that the map could potentially be used in that way. Taste categories were included due to them often appearing within *Gastrophysics* studies and provide an opportunity for separate research to be done by someone new to the map, which could then be fed into a process.

In the context section I set the list of conceptual / critical / commercial / constructive because of the frame I used in another map, in order to position food design projects. I took this decision because it which I felt allowed the generated ideas to be more open-ended and intuitive during earlier design phases. These options relate more to the intention of a product, rather than its practical application. Although the map could be developed further, it serves as a reminder that sense attributes can be considered from an early stage of a design process and used as an active part of a concept, or at least considered as consequences of material choices. With some changes in parameters, it could therefore be applied to other product categories, in order to gather information and generate ideas while materials are chosen and other design methods are deployed.

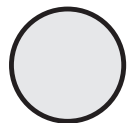
The AoE map related to my research question because it allowed me to make order out of large, complex and overlapping research and to set that within an approach including senses and materiality. The yellow coloured circles show a potential route through the map, leading to conceptual packaging for fruit which focuses on the sense of touch.

The following page shows an expansion of the haptic sense category shown here, as well as a framing map for the project as a whole. The haptic map can be interpreted for different materials.

Points of Reference



Core Structure (*objects*)



Supportive Structure (*thesis*)

Haptics

Shape

Proportion

Texture

Hardness

Temperature

Weight

Spherical

Tiny

Smooth

Solid

Hot

Heavy

Angular

Massive

Rough

Robust

Cold

Light

Curved

Compact

Sharp

Soft

Warm

Comfortable

Triangular

Thin

Polished

Resistant

Freezing

Full

Cube

Large

Sticky

Fragile

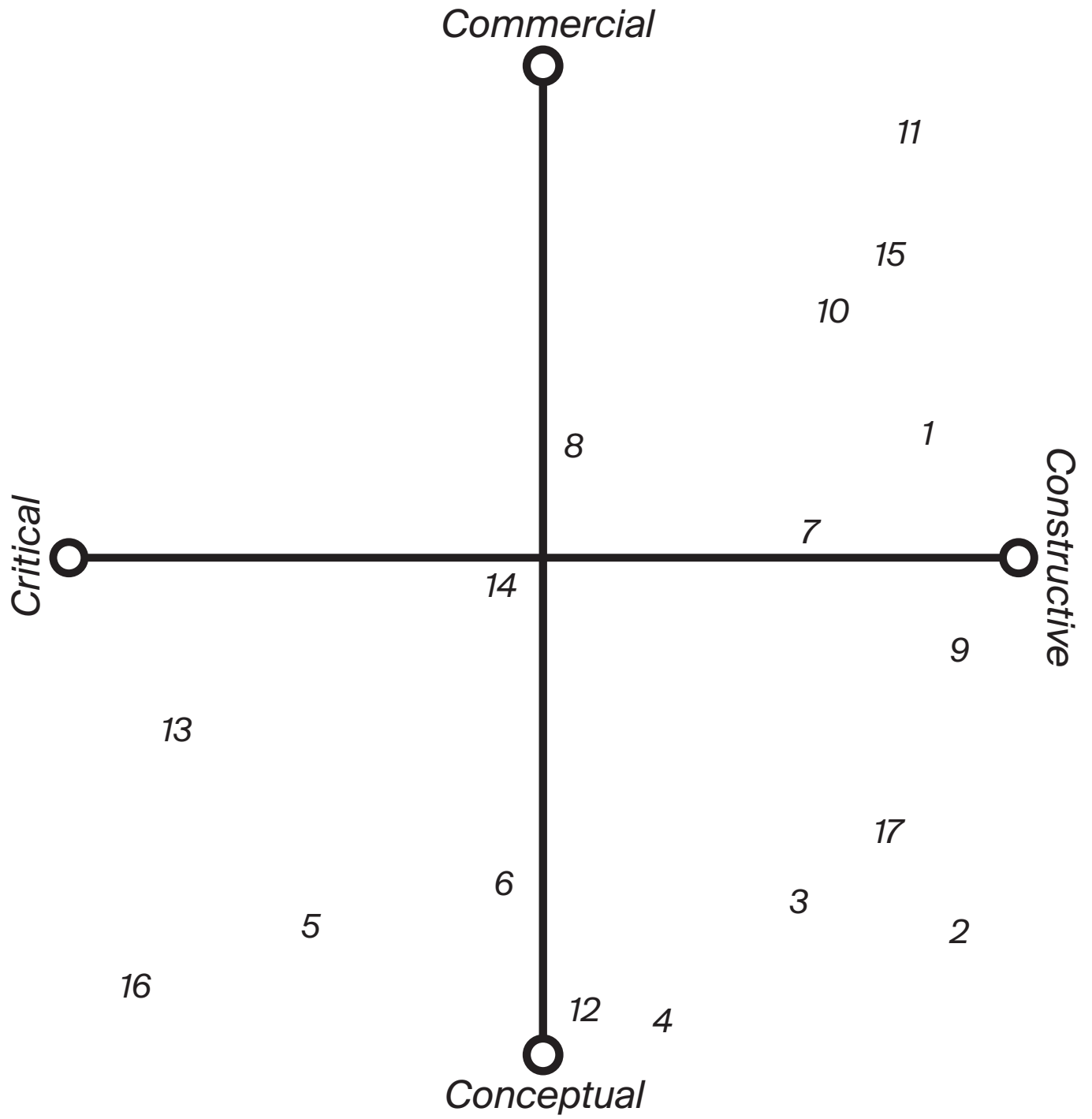
Burning

Empty

Materiality

Intention

Object(s)



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4



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7



8



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10



11



12



13



14



15



16



17

Throughout this year I have been collecting examples of food/ design projects to build knowledge in the field and in some cases for inspiration. The works in this section represent ideas which have been developed in schools and industry which have supported my conviction to work in this area. Here, these examples have been mapped so that I could gain oversight on where in the relatively new landscape of food design each concept might be placed. This helped to inform me as to where to position my own project. The map provides contrasting, but not mutually exclusive approaches, which I understand as follows:

Conceptual. The concept is speculative and resides in a possible future.

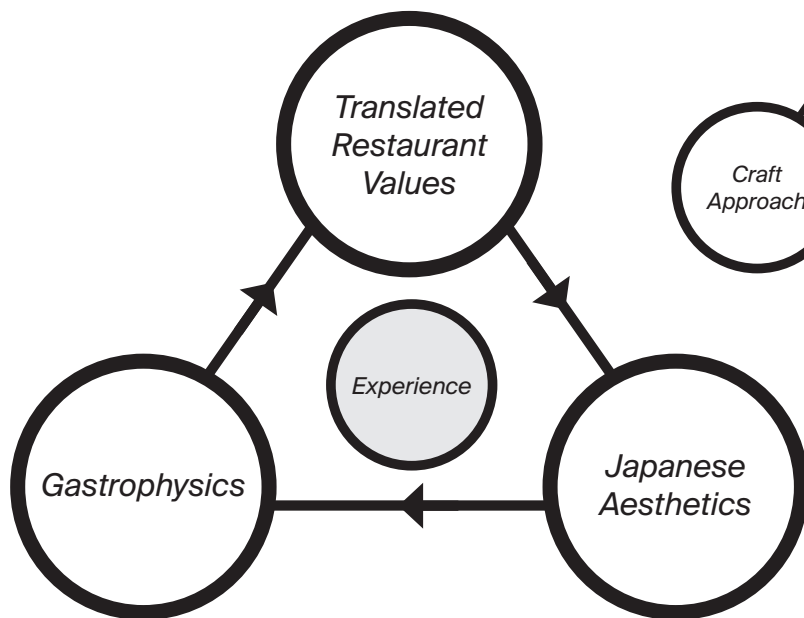
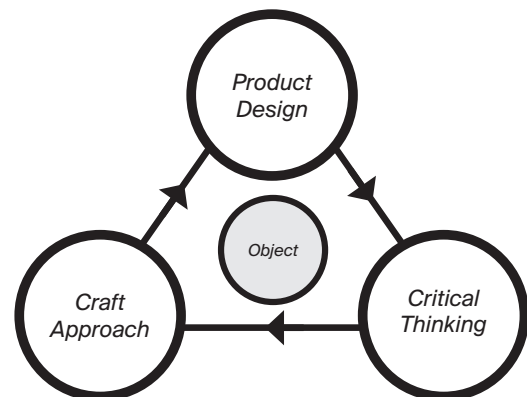
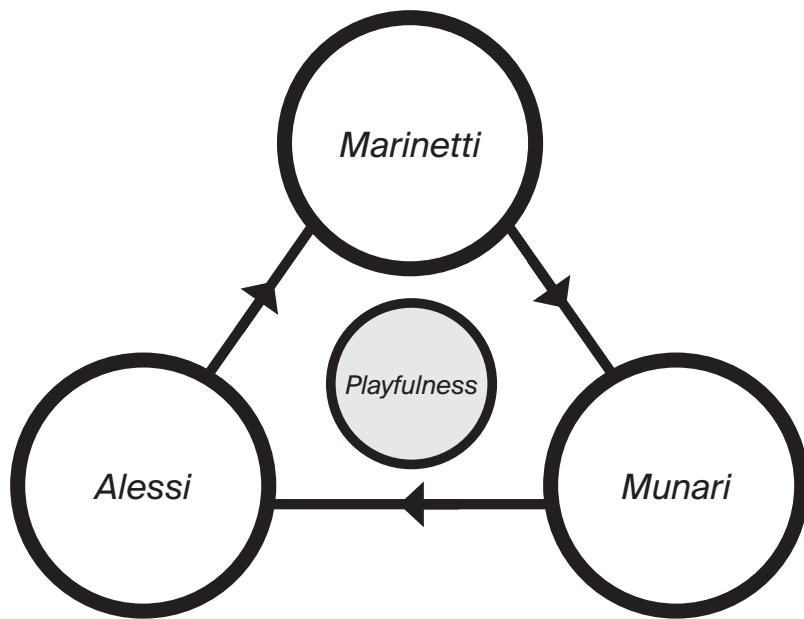
Commercial. The concept could be placed on the market today.

Constructive. The concept is trying to address a current/ future problem.

Critical. The concept is questioning a situation, and looking to create discussion.

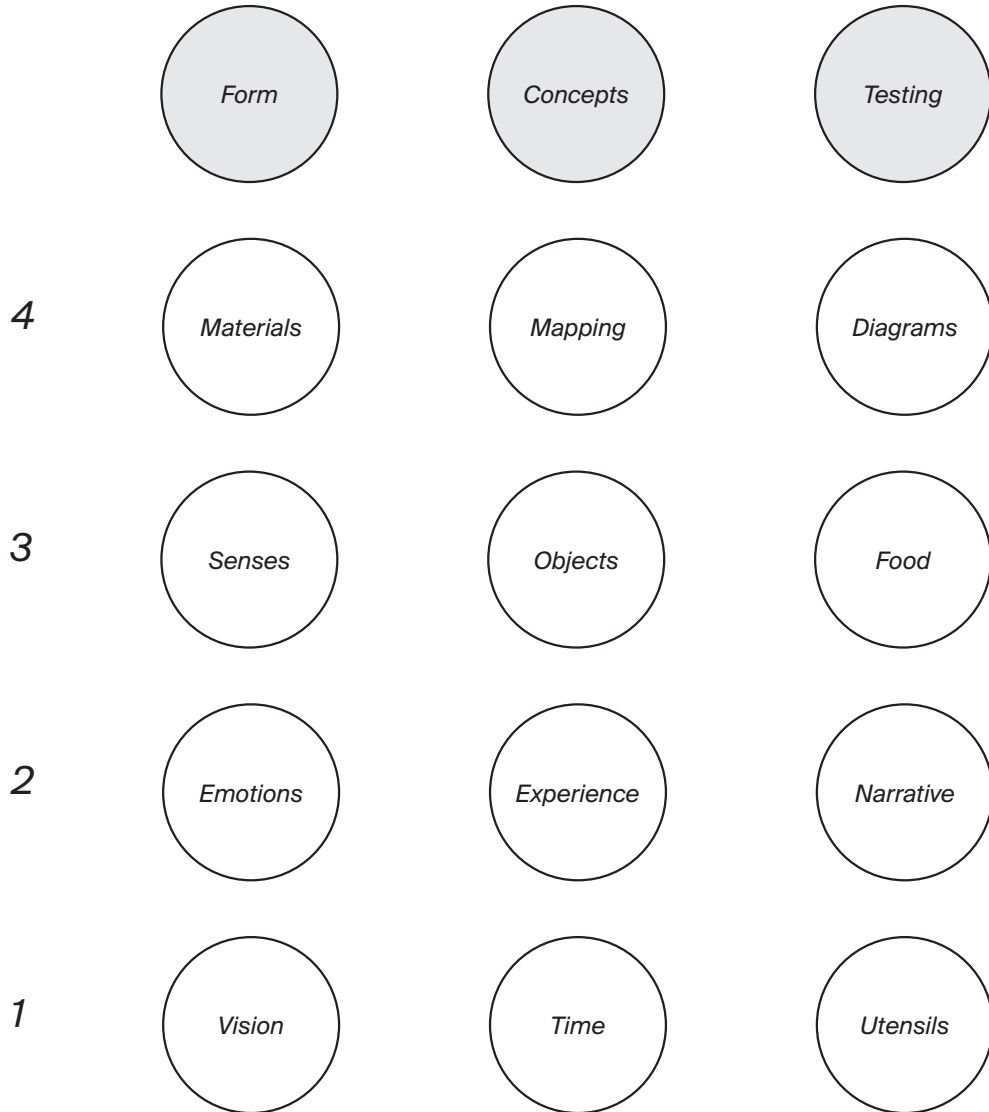
Due to the nature of this method, the results are purely subjective, and therefore not reliable. By this, I mean that someone else might see other qualities in each project, and therefore position them differently. The map focuses on the broader definition of food / design, rather than the act of eating which I focused on. However, since this tool was used as a way to contextualise work in a field which is quite new to me, it helped greatly to get a sense of the intention of other designers, from a range of countries, working within the theme of food.

1. Something Sweet. Tessa Geuze, 2015. 2. This Too Shall Pass. Tomorrow Machine, 2014. 3. The Future Sausage. Carolien Niebling, 2017. 4. Baked. Formfantasma, 2009. 5. Homemade Schizophrenia. Firdaws Fourcroy, 2015. 6. Daily Haptics. Marie Rouillon, 2011. 7. BUGBUG. Kobayashi Wataru, 2016. 8. Living Plates. Lina Saleh, 2017. 9. Edible Growth. Chloé Rutzerveld, 2014. 10. PROEF. Louise Knoppert, 2014. 11. The Makery. Joseph Hartley, 2012. 12. Microbial Home. Philips Design, 2011. 13. Fork. James Stoklund, 2013. 14. Westiental. Wen Jing Lai, 2014. 15. Zyydel 02. Pani Jurek, 2014. 16. Human Hyena. Paul Gong, 2015. 17. Sensorial Stimuli. Jinhyun Jeon, 2012.



4.3. *Diagrams*

Three-point diagrams have been a constant resource throughout the design process. They differ from maps by condensing a smaller number of more general themes, visualising and clarifying potential overlaps. A number of them can be referred to and adjusted over longer periods as an active and robust way of creating focus-points when research is being conducted across multiple fields. Three of these diagrams appear in other parts of this thesis, and all went through an iterative process as new information arrived, or new developments were made. In the end they can be used to clearly communicate the goal of combining three points of reference with a central connection. The diagrams opposite also served a methodological purpose in different phases, but became more useful as process tools rather than as communicative tools within the main part of the thesis.



5. COOK

(Development Process)



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5.1. *Compito*

This page shows the forty or so tools made in two iterative rounds. They are grouped into numbered categories according to the task they are meant to perform, and are experiments on that theme, as well as length, weight, balance, thicknesses etc. They also represent practice with the material, and how it can be taken to different grades of finish. Among these tests are some pieces made of pine and oak, but focus was placed on the grain pattern of birch due to it working most effectively together with this scale of object. Birch was also chosen as the main material because of the story attached to these particular pieces, which had been drying for 20 years in the roof of the workshop in which the the utensils were made, having grown in the forest nearby.

The intention was for the tools to have minimal function and in some cases for them to be difficult to use. This was an initial attempt to slow down eating by presenting a challenge. Each tool category/ function was translated into Italian, in reference to the many Italian influences found by this point, and to suspend preconceptions about the form each object should take. *Compito* means 'task'. The objects are listed here:

- 1. Parete.** Translation from the word 'wall'. These tools are to be held in the left hand, and work in a similar way as a knife or the edge of a plate/ bowl, by providing a surface to work against with the other tool.
- 2. Sonda.** Translation from the word 'probe'. For moving small quantities of food to a different part of the surface. For separating ingredients and exploring components of the dish.
- 3. Stampa.** Translation from the word 'press'. For applying downward pressure on a piece of food, reducing it in size and/ or releasing juice- for example from a berry.
- 4. Pala.** Translation from the word 'shovel'. For working in larger surface areas-moving food through a sauce. Smaller tests are meant for scooping food and taking it to the mouth.
- 5. Tuffo.** Translation from the word 'dip'. For stirring or wiping thicker liquids and moving them to the mouth- for example ice cream, yoghurt.
- 6. Mestolo.** Translation from the word 'ladle'. For taking portions of food to the mouth, and for using upside down to push or pull food across the surface.
- 7. Presa.** Translation from the word 'grip'. When more accuracy is needed, for pinching small pairs or groups of components together.
- 8. Forare.** Translation from the word 'pierce'. For stabbing one or multiple pieces, combining components deliberately.



1



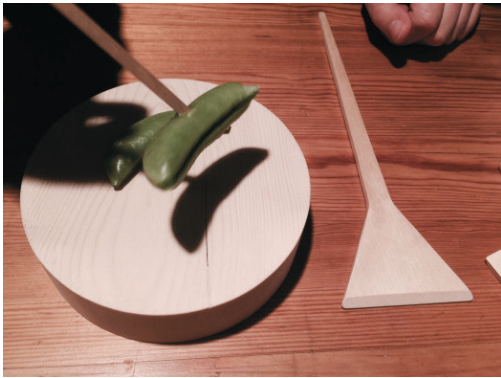
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An initial round of ten objects were tested. Food items such as raisins, sweet peas and seeds were chosen because of their varying size and surface texture, and because they are not easy to pick up. Some instruction was given (the basic idea of using a 'wall' in one hand, and a 'utensil' in the other) but I wanted to see how each was held and instinctively used. Three objects in varying heights and surface sizes were provided, on which the food was to be placed. The scale relationship between the tools and the surfaces is partly considered, but mostly serves to test the principle of the Parete (wall) tool being used to keep food from falling off. Given that the surface has no edges, users are dependent on their own dexterity.

Positive feedback: The smoothness of the wood was considered to be very satisfying and warm. The range of tools and change of material is interesting.

Negative feedback: The tools were too difficult to use. Some edges are too curved or angled and the sizes overall were too large for some of the hands. Unless outright difficulty is the intention, a distance must be found which feels comfortable enough to be rewarding, but tricky enough to be interesting.



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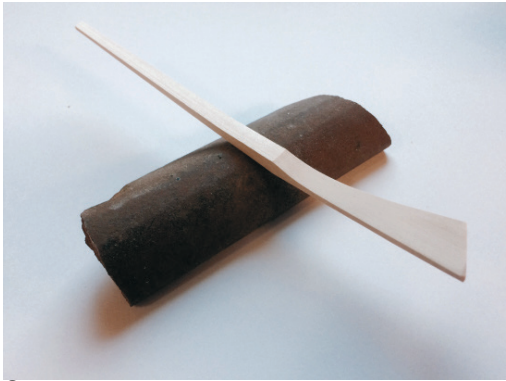
5

Combined with the initial feedback, a reduction in utensil size came from an interest in the intimacy of eating, and how this can be altered by the objects in play- potentially building an emotional connection to the eating experience. This group of utensils are far more functional, and were designed to pair with one of the three, circular plates in varying height/ sizes. The lowest offers the largest surface area, the tallest offers the smallest surface area. The thinking behind this is to do with a familiarity of interaction, the skills for which would improve over time. As the user becomes more skilled, so the level increases and the challenge is reset through the amount of space available to work/ eat within. This idea relates to time and accuracy, and offers choice for the user. The photos show various utensils and function.

Image 3 shows the surface object itself being held with the free hand, which was not planned, but became an idea I explored later. While I think the idea of a set of surfaces has some merit, I decided to focus on the tools and develop their form, function and purpose in both active and idle states.



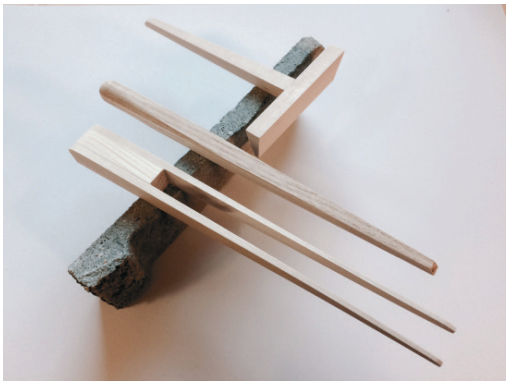
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5.2. *Table Sculptures*

Having tested the utensils on table surface, I began thinking about how the utensils might be presented in the home, and that a second object could provide some tactile contrast to the birch. I experimented with found rocks and ceramic, as well as purpose-made circular and conical objects. These blocks allow for the utensils to be presented above the surface of the table, and allude to the practical function of chopstick rests.

I was drawn to the idea of the utensils providing some sculptural value on the landscape of a table, both in use and resting. This was inspired by Bruno Munari's *useless machines* (Munari, 2008), and by Marinetti's *food sculptures* (Marinetti, 2014), and suggests some playful interaction aspects including balance. The images show variations on how to allow free movement of the utensils while indicating the different zones pertaining to the hand and to the food.



1



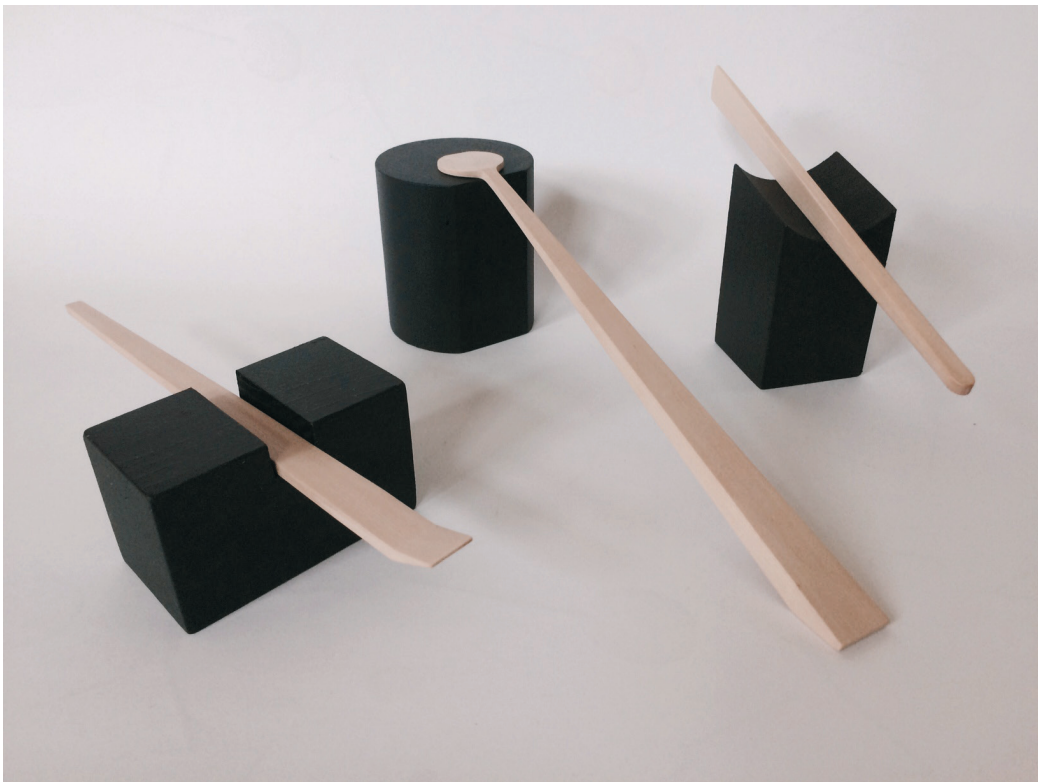
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The birch utensil is presented with a second 'block' object and chopped tomato. While being held, the object is conveying tactile information to the left hand of the user include weight and temperature, and with more research might be paired with the food. Material suggestions for this are ceramic or stone.

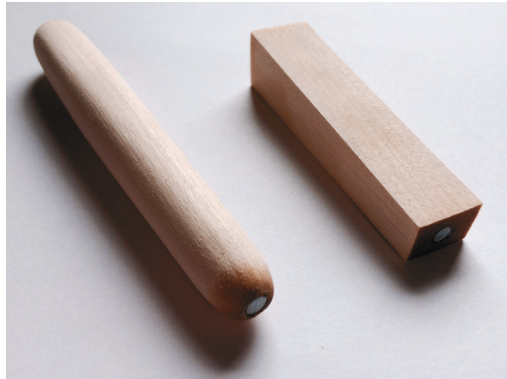
1. The curve of the block matches the curve of the utensil, and provides an area for food to be moved up onto the utensil.
2. The block has a section removed which matches the size of the utensil, limiting the amount of food it can carry.
3. The block is cylindrical with a flat section removed. This allows for it to be used standing or laying. A small part of the circular, function-end of the utensil is also removed so that it collaborates with the flat part of the block.
5. When the tools rest, there is a spatial/ architectural component to the setting which could be developed as a sculptural feature during a meal, and when the objects are not in use.



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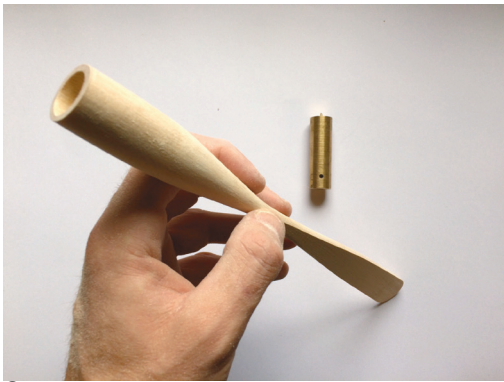
5.3. *Sensory Ingredients*

By placing a second, hollow object on the table, not on the plate, it would function as a rest for the utensil (image 4). During eating, it could be picked up and held while the food being eaten (image 5). The idea is for it to transfer different textures, volumes, temperatures and weights, and offer a playful element which might be passed around the table. Two or three might be available for each user during eating, to provide different experiences of the same food.

I embedded steel bolts into one end of test pieces to see if I could make the birch stand vertically in water (image 3). The idea of making the grip-zone of the utensil wet as it is picked up related to a sensory transference between the object and the food itself, which was inspired by Gastrophysics research.



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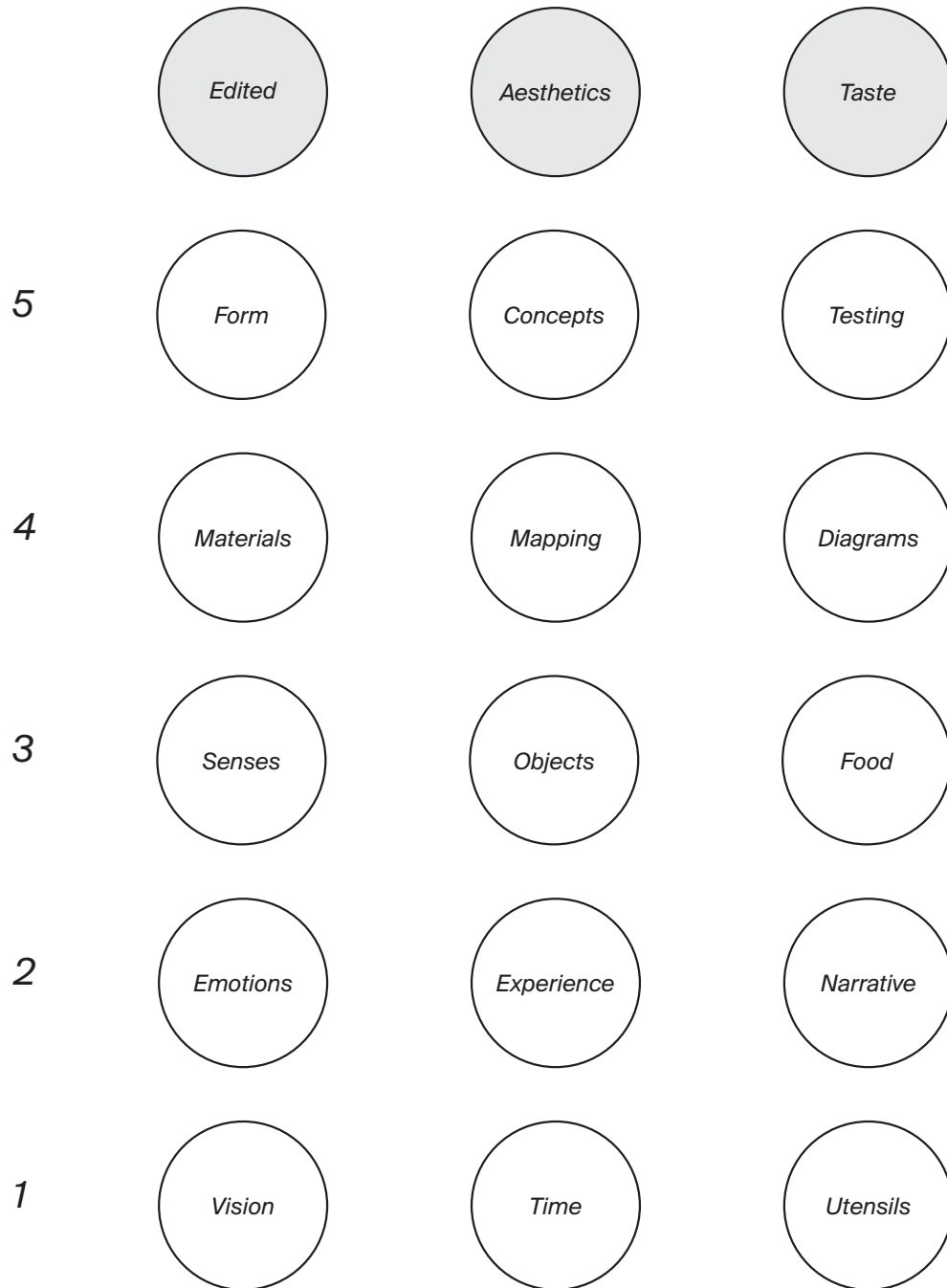


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This was a final experiment with adding sensory ingredients to the objects, in this case weight in the form of brass. I came to the conclusion that the birch was beautiful enough on its own and developed versions from the utensil opposite, varying them in length, thickness, proportion and function.



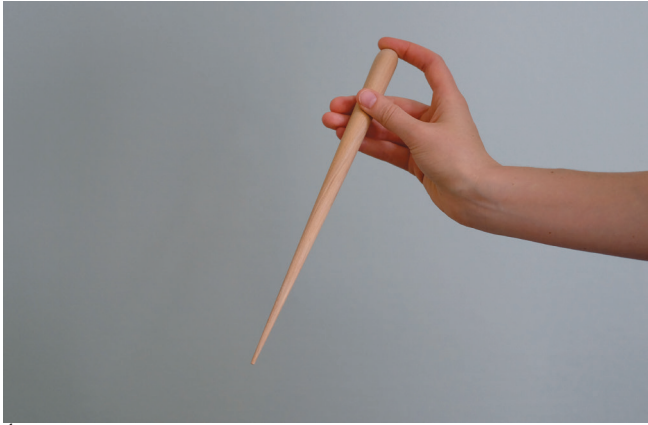
6. *EAT*

(Lento)

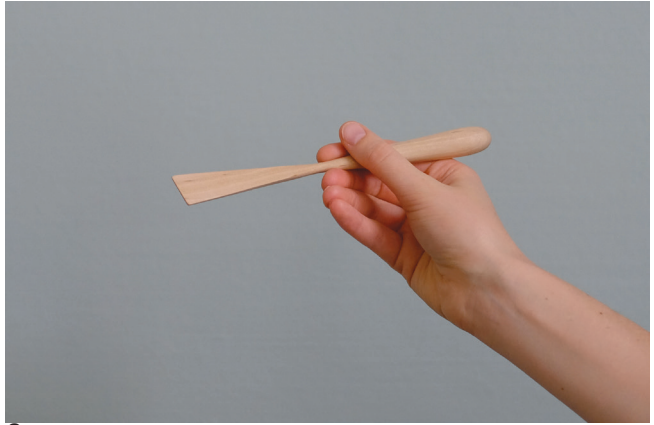


Lento is a set of five hardwood utensils, a Norwegian granite resting block, and a cotton roll bag for safe-keeping. The kit focuses on three parameters of time, materiality and senses, and is intended for home-use. It presents an alternative to the knife, fork and spoon, and is likely to be used occasionally when users have time, or make time, but may be adopted more regularly as an alternative to traditional cutlery. Lento is comparable to the objects used within a Japanese tea ceremony, and as such is intended to represent an opportunity to arrange a slower and deliberate period of time in which to eat. It is thought that the materiality of the kit- the handmade elements, the natural wood and stone- would form part of a tactile, positive user experience and lead to repeated use. This repeated behaviour could trigger the forming of new habits regarding food preparation and diet, as well as the overall quantities of food being eaten and the speed in which it is consumed.

Lento comes with two recommendations; do not use a knife and fork with the kit, and try to use the utensils one at a time. By encouraging users not to use extra objects, particularly a knife, will mean that food eaten will have to be prepared in pieces or pastes. This is thought to require more haptic involvement with ingredients- cutting, washing, blending etc- and is likely to create smaller and more varied mouthfuls of food. Using the utensils one at a time will limit quantities and encourage selection, creating momentary pauses. Focusing away from dishes including meat might encourage Lento to be used as part of a plant-based diet, and position it within a potential shift towards eating and cooking more healthily. Although it is not expected that the 'rules' of any product will necessarily be followed by users, especially in the privacy of their own home, these recommendations can be seen more as a guide and part of the challenge which the concept is aiming to represent. While challenging eating habits, Lento enables a physical comparison to the knife, fork and spoon.



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The utensils are made from a single piece of Norwegian birch, which is intended to make them feel familiar, despite hardwood being uncommon in the context of eating. The choice of birch is not thought to be problematic, and is being used in other contemporary examples seen in the *Steinbeisser* events mentioned earlier (Steinbeisser, 2017). Each utensil leads to a thinner section which separates it from the function end. This narrow-point alludes to fragility, and is intended to instil careful and deliberate movements of the hand. A decision for the handle to be a rounded shape is intended to place the utensils in a comfortable haptic language, putting sharper focus on the unfamiliar function-end, and its interaction with the food.

The varying lengths are related to the purpose of each tool, where more or less accuracy may be required. This variation is also intended to disrupt the standard distance, as defined by archetypal cutlery, and to cause an unfamiliar spatial relationship to the plate when collecting food, and to the mouth when eating. The shorter tools allude to a greater intimacy, the longer tools provide more challenge and reward. This idea was inspired by the point at which Japanese chopsticks are held, depending on a person's age. The point at which a user grips each Lento utensil will of course vary from person to person- the tapered handle is intended to cater to different hand sizes.

1. 270mm in length.
2. 180mm in length.
3. 210mm in length.
4. 270mm in length.
5. 240mm in length.

The materiality of the utensils has also been considered in other sensorial, haptic terms. For example, birch will conduct temperatures of both hot and cold food in a different way than stainless steel. Their relative lightness is not thought to contradict the weight-equals-quality idea mentioned earlier, due to a belief that the beauty of the natural wood itself represents a sense of quality which is inferred- particularly in a nordic context. The warm tactility and smooth grain is, as Bruno Munari says, "the most pleasant of materials to the touch" (Munari, 2008, p.109). Finally, in terms of sound, there is a marked difference when wood comes into contact with ceramic, when compared to the sharp noises often heard with stainless steel.



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Lento challenges users to engage with what they eat, and is intended to inspire dishes which can be eaten with the utensils. This approach is a response to research indicating that tableware objects can lead to new cooking in restaurants, as seen in the *Odd Standard* and *Kamai* case studies. In these examples, as well as the Michel/ Fabian product *Goute*, there is evidence to suggest an openness on the part of both chefs and the domestic market to be inspired by tableware- and for these designs to influence eating habits (Goute, 2017). These are also examples of cross-disciplinary skills combining to challenge food experiences, and offer new alternatives. Given that there is no knife in the Lento kit, and users are encouraged to use only the utensils provided, it will be necessary for the food to be pre-cut, or edible in bite sized pieces without the need for cutting. There are many possibilities within this limitation, and the fact that they may present an initial challenge is intended to lead to more time spent preparing food and considering ingredients and recipes.

The images opposite show a scenario in which the utensils have been laid out to the right of a medium-sized, shallow plate. Food in four different consistencies has been prepared and arranged in individual bowls, which can then be moved in small quantities to the plate, making a meal of various components. The user is encouraged to change between the utensils throughout the meal, matching each with the food, or to find their personal preference. This idea of interruption caused by materiality was inspired by Japanese aesthetics, and is meant to create a situation in which there is a heightened awareness in moments as they happen, as in the case of the path of stones leading to a tea house. In turn, this might increase the pleasure and appreciation for the food itself, and obstruct so-called mindless eating. The act of changing between utensils, as well as the carrying capacity of each, is intended to force a slower pace of the meal with extended gaps between smaller mouthfuls.

1. Dipping into a thick liquids- in this case a yogurt with cumin seeds and spring onion.
2. Scooping mixed matter- in this case black beans with mango, avocado and chopped mint leaves.
3. Taking pastes- in this case hummus with turmeric and paprika powder.
4. Piercing larger pieces- in this case roasted beetroot, potato and garlic, with calendula petals.

The fifth utensil is supplied as a multi-purpose standard.

The arrangement of the kit as well as the other tableware provides an opportunity for the user to create a pleasing landscape of objects- to apply a creative composition to the table. There are 120 different configurations in which to lay out the five utensils.



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Photos 1-8. Lento test dinner, October 2017.

The kit was used during a dinner with four guests. This type of situation was inspired by the *Steinbeisser* gastronomy events, at which unexpected and often challenging tableware is paired with food as a one-off experience. For this reason, three of the guests had never seen the utensils before, and the purpose was the gauge reactions to them, note dialogue and to take photographs for use here. I decided to focus the utensils on dessert, and set out a range of ingredients which represented the four main food material/ consistencies the project has so far catered for. This included organic blueberries, raspberries, ice cream, sorbet, honey, pomegranate as well as nuts, chocolate, cinamon, mint leaves and a baked apple crumble. The dinner also served as a test for the practical implications of using the utensils in relation to other tableware objects and in terms of scale, they fitted the table very well. Each guest was given a medium-sized bowl and a Lento eating kit. The components of the dessert were spread out in the centre of the table, each with a spoon which could be used for self-service. One of the first comments to come out of the evening was the possibility of the utensils to be used 'for pouring sauce or spreading cream' - that they could be used as part of preparation as well as eating.

The utensils caused a great deal of social interaction, and brought a playfulness to the situation which may not have been otherwise the case. Although this may be to do with novelty, the utensils did lead to some discussion about further uses, and they were used in ways which were not anticipated. One guest used a utensil to pick up chopped nuts, after rolling it in honey (image 3). The fact that the utensils do not have individual names also forced them to be described when being recommended with a particular food. Some were given names 'Spatula' and 'Ball', along with stories of what they were reminiscent of. One utensil is apparently similar to a wooden spoon a guest's mother used to use when baking- which she was allowed to use to eat unused cake-mix as a child.

Overall the utensils were considered to be very satisfying to use, with movements against the slope of the bowl noted as enjoyable (image 4). The eating took place over one hour, which is longer than might be expected for dessert, although that is of course hard to say. Dessert is often the longest part of a meal. This scenario was mostly used for the puropse of feedback and observation, and in that respect it was successful. It suggested a place for the kit to be used as one part of a meal, not necessarily the dessert, rather than throughout multiple courses. Alternatively, the utensils could be split up and used over several small, tasting courses, with a new utensil arriving with each until a full set is available. Use of the same utensils with variour flavors was not problematic. These kinds of interpretations are ultimately decided by users, but do help to frame the future possibilities for the kit.



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One of the kits was given out for one week to see how it works as part of a user's private life. Lotte Shepard works for the Norwegian food magazine, *Ren Mat*, and as such, has an above-average interest in food. She has also lived in Japan and is therefore somewhat familiar with wooden eating utensils. Although a brief introduction to the theme of the project was given- that the knife and fork were being questioned in relation to Western eating habits- a more detailed explanation was avoided in pursuit of objective feedback. Lotte was asked to try using only the tools provided, as much as possible, and to document her experience and thoughts. The images opposite are examples of what she ate. She also took the tools with her to Koie Ramen, a restaurant in Oslo, and found that although they worked well with some parts of the dish (the egg for example), she had to use chopsticks and a spoon. This is not surprising due to the length and consistency of ramen noodles, and Lotte gathered that the tools are 'not meant for all kinds of foods' (Shepard, 2017). When making her own food, with the utensils in mind, she said that they created 'freedom to use and interpret' (Shepard, 2017) and that this gives room to be creative when eating. When having a meal with colleagues or friends, 'the conversation topic was often the culture around eating and eating utensils, which led to interesting talks' (Shepard, 2017). It is not known of course to what extent this would have been the case without the Lento eating kit being present, but it's possible that it contributed in sparking such a debate. Lotte seems to think the utensils played a significant role simply because they are unusual.

A longer utensil was regularly part of her breakfast for eating yoghurt and granola (image 1). When asked if the kit caused any associations or memories, she said that this tool 'reminded me of licking a lollipop, and a feeling of tasting the food for the sake of the taste, and not for the sake of being full' (Shepard, 2017). This was interesting because it indicates a similar playfulness found in the dinner scenario, and points to the fact that eating is not, or perhaps should not, always be about dietary satisfaction. It can be pleasurable for other reasons too. 'The stabbing tool makes me feel a bit like a caveman, and it is quite funny to eat that way' (Shepard, 2017).

Finally, Lotte was asked to comment on the materials. She said the fact that the utensils gave her 'the impression that this is something special, that I should care for, and I am meant to keep for a long time' (Shepard, 2017). She said that she really appreciated the silence of the products, unlike steel tools against plates. Imagine if all big dinners would eat with wooden tools, it would be a much more comfortable sound environment!' (Shepard, 2017).



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The tool kit can be wrapped in a fabric roll-bag. This is to protect the utensils while they are not being used and to keep them safely together with the resting block. The bag has seven compartments; five for the utensils, one for the stone, and a spare which can be used for an additional tool. This empty space can be utilised by the user, if they would like to include chopsticks, for example, or it could be used to store any future utensils which become available. The free compartment also alludes to the the kit being incomplete, that it is open to interpretation.

Another intention of the bag, in addition to practicality, is for it to illicit care and respect for the objects. If they are well taken care of, they will last longer, and the bag is part of that logic. In terms of materiality, the bag also provides a soft element to the kit with tactile qualities which create a contrast to the cold, hard stone and the warmer, smooth birch. The act of wrapping and unwrapping serve as opportunities to feel these varying materials in the hands, which can be seen as a way to build an emotional bond. Two prototypes were made- one in organic cotton, one in organic Belgian hemp. The cotton is much more durable than the hemp, and has a more satisfying, rough texture, but is less sustainable as a material- using far more water in production. The hemp is also a tough fabric, but needs slightly more effort to wash carefully. On balance, this is not thought to be problematic. Lento is meant to demand some effort from it's owner.

The bag may be used as a form of presentation during a dinner, or as a way to transport the utensils to work or to a dinner. Including the possibility for a version of the kit to be mobile makes it easier to imagine if it could have a place in someones daily ritual outside of the home- during lunch in an office or a park.



The utensils need to be carefully washed after use and cannot be placed in a dish-washing machine. This is not thought to be problematic due to certain other kitchen-eating objects requiring more effort than others- for example older, porcelain tableware, iron pots and expensive kitchen knives. The Lento utensils would need to be hand-washed with warm, soapy water. Once they have fully dried, they can be wrapped away in the cloth bag for safe-keeping.

Birch will demand periodic maintenance to ensure a long life. People are generally willing to make effort keeping valued possessions in good condition- polishing leather shoes, watering house plants etc. These actions can be seen as extended time with that product, strengthening a bond. Jonathan Chapman describes this as follows:

‘Subtle and more ephemeral user experiences, such as those gained from gently refilling a fountain pen with ink, or perhaps re-honing the blade of a sushi knife on a well-worn whet stone, will be revisited time and time again, as with each visit the experience grows and evolves a little further’. (Chapman, 2015, p.88)

Although the utensils are finished with a protective wax, they will show signs of use due to the fact that they will be coming into contact with a variety of food materials, textures, temperatures, and water during cleaning. This visual history of light stains may be something users enjoy, as it will tell a story about what food they eat, but occasional treatment would be recommended. The image opposite shows the act of coating a new layer of food-safe wax. This suggests that the inclusion of a maintenance kit, accompanying the utensils and comprising of suitable sandpaper, a lint-free cloth, wax and instructions would contribute to Lento’s extended life. Including this kind of mechanism is also in line with some of the more philosophical intentions of the concept, alluding to respect for natural resources- in the context of both food and everyday objects. It could be that the utensils are untreated when they are new, so that the first task for the user is to care for them.



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The utensils were tested with various types of finish to protect against wear. Because they will come into contact with food and the mouth, the additional substances must be food-safe, and this leads to natural oils and beeswax. The images opposite show the results of two coats with each test, applied to different aged pieces of birch from the same tree. The darker pieces are from closer to the centre of the tree, and are therefore older.

1. Linseed oil. Became dull and matt more quickly than others. Also left the strongest smell.

2. Mineral oil. Gave a very nice finish, especially with the younger, lighter piece of birch, but also left a smell.

3. Walnut oil. Builds a beautiful finish and is completely free of odour.

4. Beeswax. Also odour-free, and more resistant to moisture. Harder finish.

5. Walnut oil and beeswax mix. Recommended as a food-safe treatment for wooden kitchen utensils and cutting boards, and was easily the most successful.

All of the coatings were tested with food and cleaning, with a conclusion drawn that by forming a hardening layer, beeswax is necessary to prevent the wood grain from lifting too easily. Beeswax also prevents a very slight, oily residue left on the hand during use. The walnut oil/ beeswax was heated and prepared at home as part of the prototyping process (image 6) and more testing would need to be done to ensure a properly efficient mixture, as well as more testing on layers and quantities. Overall, after two or three variations, a usable ratio was found (one part oil, two parts wax) which enabled testing of the objects. Both the beeswax and the walnut oil are organic, and fit the ethical undertone of the kit. Beeswax alone could be offered to users with nut allergies, although the minimal quantity of walnut oil used on each utensil might not be enough to cause problems.



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1. Avocado with trout roe, nori seaweed powder and thai basil.
2. Ginger, green chilli, coriander and lemongrass butter with dill.
3. Salted mackerel smoked with juniper branches.

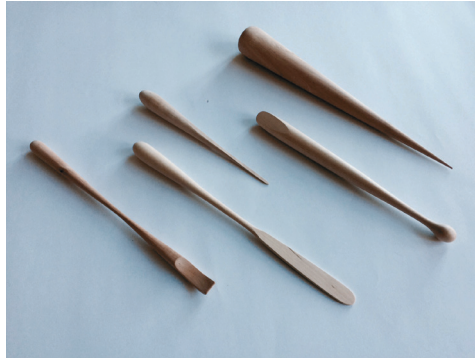
Three of the utensils were chosen by Jeppe Sørensen, head chef at Kamai, and he paired them with three dishes which were a response to them. Firstly, this provided first-hand evidence of a chef being inspired by objects- which so far had only been seen in other examples- and secondly it led to valuable feedback and insights that may not have come about without the knowledge of a professional chef. The images opposite show his work, together with each utensil.

1. The birch provides a more tactile surface for the fish eggs to stick to, which is apparently not the case with metal spoons. Jeppe mentioned that there is also some discussion about metal, particularly silver, which can tarnish the taste of roe, leading to the solution of using a mother of pearl spoon. Hardwood is a less expensive alternative to this problem. The shape of the utensil led Jeppe to use avocado due to the similarly curved forms, and the fact that the utensil could be used to peel away small pieces along with the trout roe. With more time, he would like to explore the tactility of the birch, and try to serve food directly attached to the utensil, which could then be handed directly to a guest.

2. Jeppe explained that his restaurant throws away a lot of condiments which are often served in small dishes. He attributes this to a mismatch between the shape of the dish and the shape of knives. He suggested to use the small utensil with a mixed paste of ingredients because the form of the utensil more easily reaches the inside edges of the dish, and would do so more quietly. He thinks this would lead to more empty dishes returning to the kitchen, 'without half of the portion remaining' (Sørensen, 2017). The straight edge of the utensil was lined against the half-filled dish.

3. The narrow, curved utensil made Jeppe think that it could be used to effectively remove pieces of fish from the bone (Sørensen, 2017). He ate a lot of mackerel while growing up in Denmark and had recently purchased a large amount which he wanted to cure for longer storage. The idea of serving a whole fish is not normally done at Kamai, in favor of more ingredients being delicately combined, but the experience of doing so with a specific tool made for a fun and primal experience which justified keeping the fish intact.

The experience of cooking for the utensils was described as a challenge, and one Jeppe said he enjoyed. It naturally led to a conversation about how they might be adapted for other dishes, and this reminded him of discussions he has with suppliers regarding produce- in search of mutual improvement- and would certainly provide vital input for future development possibilities of the utensils.

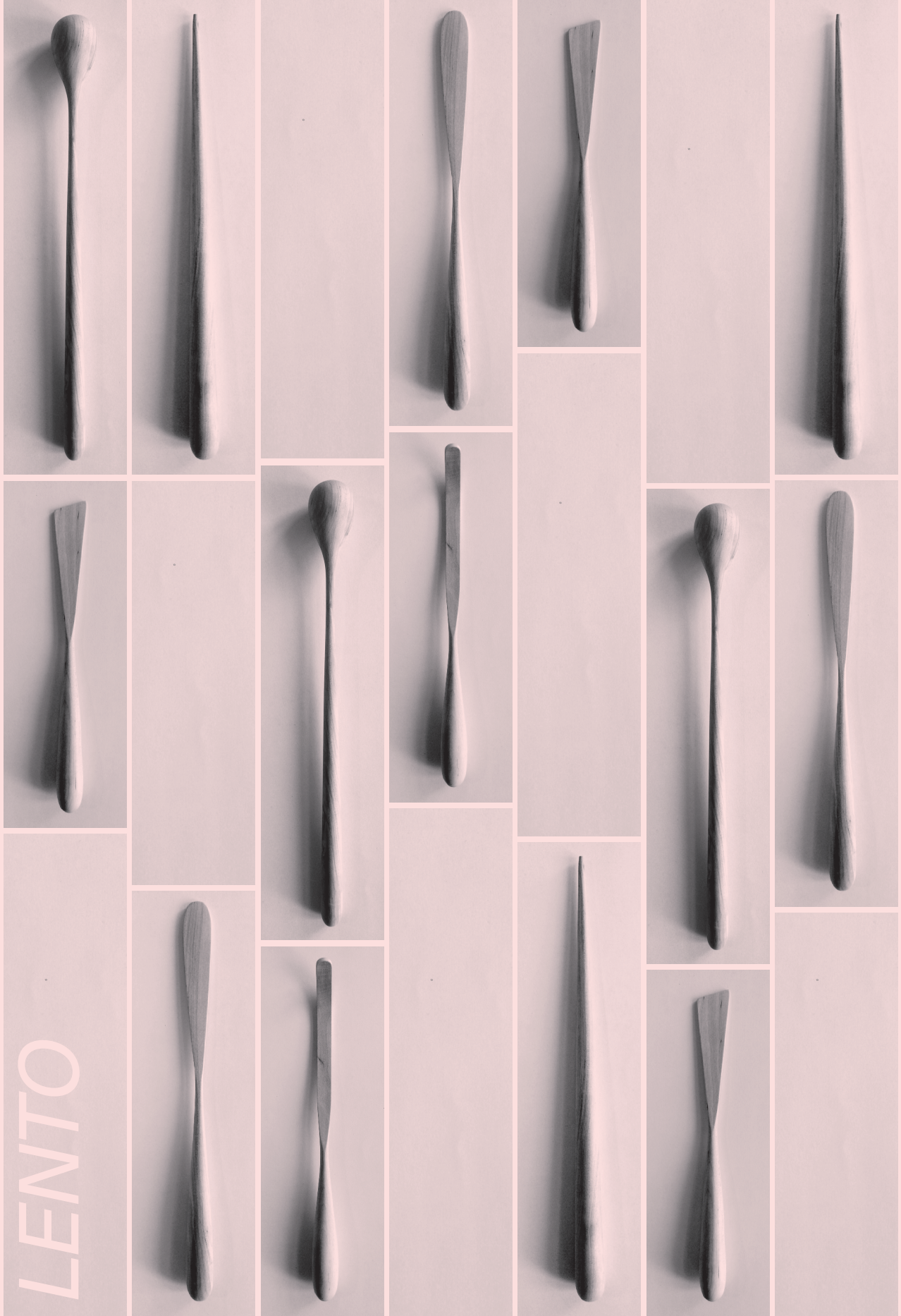


Bringing the utensils back into a restaurant world, with the experience and opinions of a chef, points to a platform in which new designs could be implemented- one or two at a time for specific dishes- and produced in limited quantities. Some of these might then become extensions for the kit, and be translated again into a domestic context. In this way, there is a symbiosis between the utensils as they are, and how future variations of them could become, fitting the notion of unfinished objects as ‘things which undergo continual development’ (Julier, 2009, p.96). Sociologist, Celia Lery expands on this to say that,

‘The unfinished object is not (only) to be understood as single, “user-friendly,” “multi-purpose” or “open-use” but as an open-ended series or system. It is about what an object might become, how it might evolve, how and with what (as well as who) it might connect, interact or evolve and so on.’ (Julier, 2009, p.97).

This, she continues, ‘is related to time and the environment in which the object exists, as the notion of unfinished-ness directly introduces the notion of temporality- thinking the future of the object as something to be considered as implicated in the present’ (Julier, 2009, p.98). These ideas are very suitable for Lento, and mirror earlier comments from Odd Standard when they talked about their designs continuing when someone has used them (Gaard-Kristiansen & Sandberg, 2017). The utensils proposed here were not born out of a specific problem-solving scenario and are intended to be interpreted. They are problem-finding, or question-raising, and as such they are dependent on input from use to define and refine their purpose- both practically and semantically.

LENTO

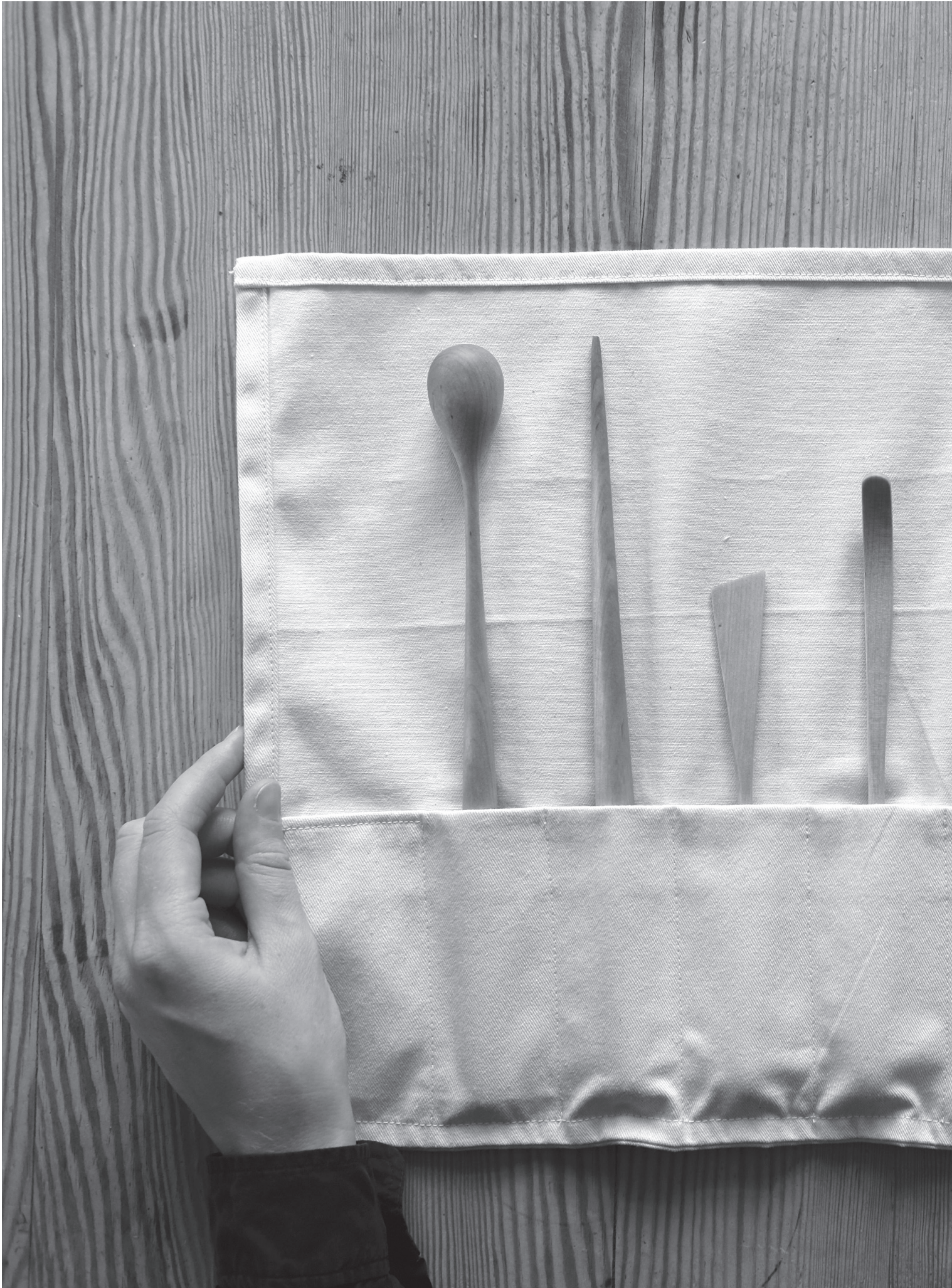


The idea of naming the concept is meant to position it in a context from where they can be understood as an set of eating utensils, but one that is materially different from what might be expected. The word 'Lento' is a musical term, meaning a movement or passage marked for slow movement and refers to the slowing intention of the kit, and to the rhythmic nature of using the hands when eating- in this case amplified by the selection of various utensils. Music is related to time and pace- themes which ran throughout the project. This is reflected in the poster, where the utensils are composed in uneven, multiple patterns, similar to notes on a score. Each utensil appears within it's own space, which is meant to indicate that although they are used together as a group, they each have individual attributes, and plays on the word 'instruments'. The blank spaces refer to the empty pocket within the cloth storage bag, which allows users to add their own interpretations to the kit, or wait for new designs. They also represent the small moments during a meal in which one is not eating food, but talking or thinking.

A small booklet comes with the kit which includes practical information about the materials and how to care for them. The different ways in which users can engage with the product are listed with short descriptions covering the various points discussed in the previous pages of this thesis: preparing, wrapping, alternating, changing, maintaining, cleaning. Each of these words appears as a noun- an action that will be taken by the user- with their hands. The booklet was originally imagined to communicate the contents of the roll bag, with an image of the utensils resting on the stone block, but developed as a logbook which could be used to document recipes for each of the tools. This is intended to increase the personal attachment users can develop with the kit, and keeps it in a physical domain requiring the use of pens and pencils, rather than phones and apps. Although it was considered for the booklet to suggest one or two recipes for each tool, this was left out in favour of ambiguity. Pre-suggested recipes would contradict the curiosity for food that the kit is aiming to inspire. For this reason, several of the pages are left blank including two facing-pages towards the back, in case new utensils are added at a later date.



Several materials were prototyped for the resting blocks including granite, ceramic, birch and concrete. There are colour options with both ceramic and concrete, although it was thought the concrete gave a very different message which was not suitable. The use of colour pigments was the result of earlier artistic research, which seemed to remind people of candy. From a practical point of view, ceramic is probably the preferred material, but doesn't provide the same rawness as the stone. These objects give another option for users, who might want to collect several pieces in different lengths, for smaller or expanding sets of utensils.







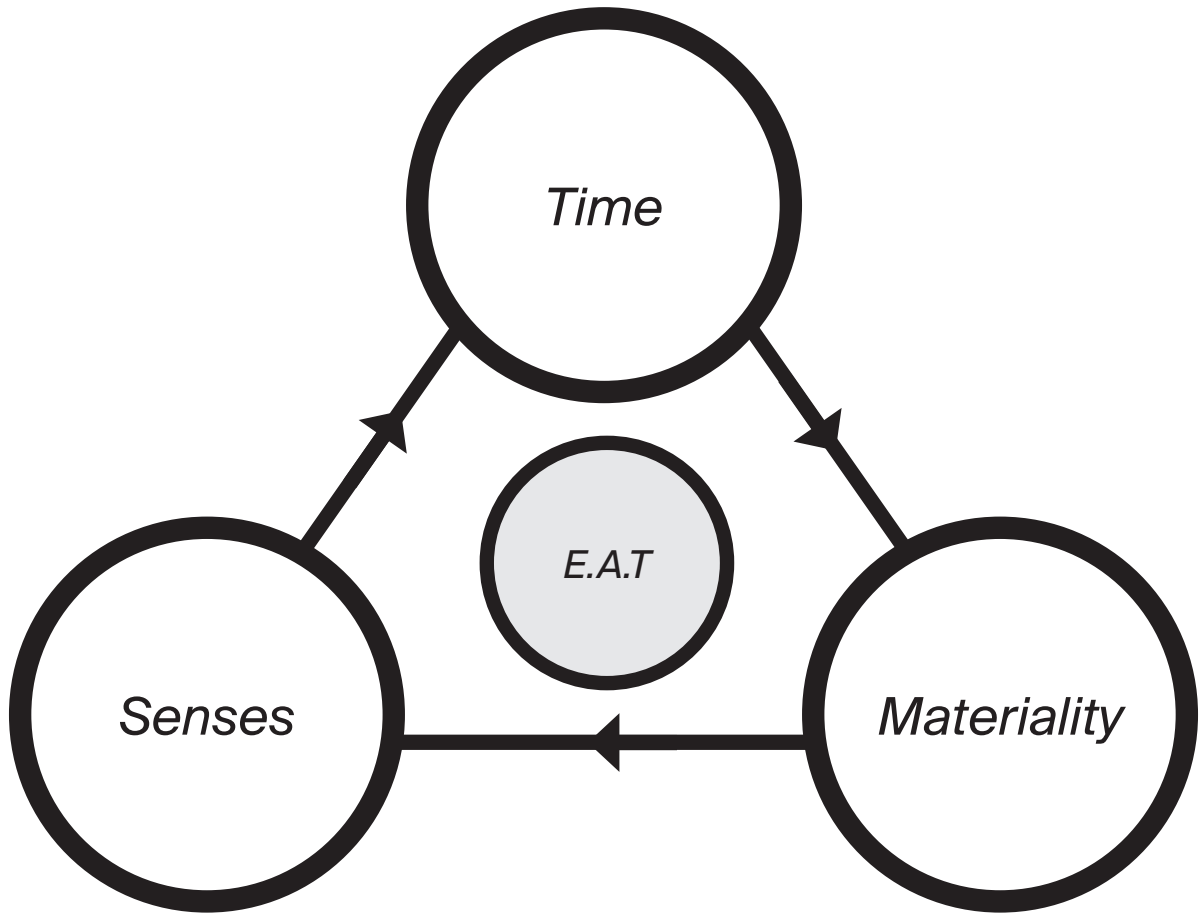
7.1 Discussion

Time

‘Is there a way to expand time?’ - Grant Achatz

It is appropriate to place the above quote from a Michelin star chef at the beginning of this discussion regarding time, because of the influence the restaurant world has had on my process of developing Lento. The utensils are a translation from that world into design for the home. The concept of time in the form of alternating tempo appears in *The Futurist Cookbook* (Marinetti, 2014), and in the strictly executed delivery of tasting menu's at Faviken (McGinn, 2015). With Lento, the aim is to create a slower pace, and after a period of trialling prototypes which included varying levels of challenge, based on an idea that difficulties take time to overcome, it became apparent that such an approach might contradict possibly the greatest benefit of eating- that of joy. According to Brillat-Savarin (as cited in Spence et al, 2013), the pleasures associated with eating and drinking constitute some of life's most enjoyable experiences. This is where the concept of beauty comes in, and started to present itself as a powerful concept which, if harnessed and deployed through design, can create experiences which are pleasurable in spite of, or perhaps because of, the fact that they expand time. By offering a set of five utensils with which to eat, instead of the usual two (or perhaps three if you include a spoon), there are suddenly more options. Within this new table landscape, with unexpected materials and objects, curiosity becomes a consequence of choice and the small pockets of time that occur while considering the next mouthful and deciding whether or not to change utensil become doorways to a form of awareness in the moment. The Lento kit aims to inspire the same awareness during the process of preparing food for it, as well as in the acts of wrapping, unwrapping and arranging the utensils. This awareness has been described by Saito (2007) as a form of beauty and is a humble goal of the proposal. These ideas are the direct result of theories surrounding Japanese aesthetics, and exist in Lento to connect users to the actions they are carrying out. It is therefore not so much a case of extending real time, as much as it is heightening awareness within it through the pleasures of the food and aesthetics. This is in reaction to contemporary notions of convenience attached to eating, which are evidenced in the existence of fast food, and stand in the way of cooking and eating as something to be slowly enjoyed.

In *The Unknown Craftsman*, ‘beauty is identified with use’ (Yanagi, 2013, p.197). This idea is echoed in the pages of *Super Normal* (Fukasawa & Morrison, 2007), and became a key reason to develop the set of eating utensils into the form of a kit that could be used in a home context. By including a fabric roll-bag for storage, the intention is to evoke a sense of care. The idea of caring for something is usually synonymous with doing so for a long time. The affordance of safe-keeping alludes to a reciprocal relationship, in which the objects will last longer and continue to be of service for as long as they are treated well. This nurturing mechanism is also a result of the materials, especially the birch, and by performing maintenance in the form of occasional sanding and applying wax. According to Chapman, in such situations, ‘the user becomes a co-producer of narrative



experience' (Chapman, 2015, p.130). This would be the case not only while the utensils are being used, but in their life off the dinner table. With or without this kind of diligent upkeep, the materials will display their condition as all materials do, which could be described as a physical representation of time- both visually, and in terms of how they will feel in the hand. This wear can be controlled by the user. Although portability has not been a focus so far in the project, the roll-bag has the potential to carry the utensils and what they represent for the user beyond the limits of the home, and alter the fast pace of modern life in public or at work. This, in the spirit of open-ended design (Julier, 2009), could lead to new utensils designs that fit the same aesthetic language, and create the possibility for the kit to be collected and developed over time. In their current form as a kit, they offer a blank space to be filled with the users imagination, and time.

Materiality

The idea of altered behavior, as a result of differences in materiality, is discussed by Bruno Munari (2008). His many examples come in the context of architecture, and how the natural materials of Japanese homes contrast those of homes in Europe. This comparison of rational and emotional material choices is reminiscent Alvar Aalto's focus on using birch instead of tubular steel in his furniture designs (1984), and can be used here when comparing birch eating utensils with the ubiquitous stainless steel knife and fork. Such eating utensils can be thrown into sinks, drying racks or on top of one another in kitchen drawers. They are durable and easily replaceable. They are rational, but they bring out the same kind of carelessness Munari talks about when comparing the sliding doors of a traditional Japanese home- 'so light they can be moved with a fingertip'- to the heavy doors of Italy, 'which are shut with a bang that can be heard all over the house (Munari, 2008, p. 106). In this analogy, the Lento utensils elicit more considered movement of the hands, and begin to blend into a discussion on where they might be positioned in an emotional design frame. The concept may not be for everyone, and present too many behavioral drawbacks (not everyone is interested in maintenance or time-consuming interaction), but have been shown to provide pleasure through use (Norman, 2005). Viscerally, 'where physical features dominate' (Norman, 2005, p.67), the natural wood and simple forms have received positive feedback and been described as beautiful. Although this is a matter of taste, wood tends to create positive emotions and fits the Japanese aesthetic concept of wabi-sabi, in which material qualities have been listed as 'irregular, intimate, unpretentious, earthy and simple' (Koren, 2015, p.11)- qualities which also tend to be appreciated by nordic countries. The same vocabulary might also apply to the resting stone and the hemp roll-bag. On a reflective level, to 'do with self-image, personal satisfaction and memories' (Norman, 2005, 39), if successful, the kit may become associated for the user with a build-up of positive eating experiences activated by beauty/ slowness, the fun and playfulness found in the social dinner scenario, or through memories created by caring for the utensils. If the kit does manage to inspire a deeper interest in food, then it could be a trigger to the personal satisfaction of mastering new recipes. In terms of self-image all of the materials used the produce the kit imitate some of the values represented by many leading restaurants such as Faviken and Blue Hill- they are locally and/ or responsibly sourced and sustainable. Ownership of the kit, and supporting products which take an ethical standpoint, says something about a users world-view which in some way reflects on them. The journalist who used Lento for a week in early October said it



feels more right to be surrounded by natural products in this world full of cheap, mass-produced plastic (Shepard, 2017). In a similar respect, and in a final point on materiality, this kind of abstract value is perhaps best, or even only communicated effectively on the condition that the objects that complete the kit are made by hand. Currently they exist as prototypes, but if the three components were made by a specialised craftsperson in each material, their reflective and visceral appeal would likely be higher, for the user and for the maker.

Senses

In this penultimate part, the word taste can be interpreted as ‘preference’, rather than the sensory definition associated with eating, and is a discussion of how the aesthetics of Lento can be understood to affect experience. By chance, two of the key references throughout this thesis are dated in the same year, and are examples of the two fields which the project is striving to connect- food and design. Filippo Marinetti’s *Futurist Cookbook* and Alvar Aalto’s *Armchair 41* were both released in 1932, and both focused heavily on a wide range of senses. Although their motivations were not the same- Marinetti considering senses to disrupt, Aalto considering senses to calm- their work continues to be influential. Part 2.2 of this thesis provides examples of how modernist chefs are using similar sensory methods as Marinetti, as a key to memories and emotions (McGinn, 2016). By using the same material as Aalto for the Lento utensils, a sensory approach might be capable of achieving similarly calming user experiences as his furniture. Birch is more absorbent of light and less noisy against ceramic, and therefore offsets the glare and sound of steel knives and forks in the same way Aalto questioned the glare and sound of tubular steel chairs (Pallasmaa, 1984, p.116).

The initial sensory frame of auditory, taste/ smell, spatial orientation, visual and haptic, as proposed by James Gibson in *The Eyes of the Skin* (Pallasmaa, 2012) was considered throughout the design process, but became focused on an expanded definition of haptic, suggested by Cheryl Akner-Koler within her *Fusion of the Senses Model* (Akner-Koler, 2017). From this, the key words of weight, texture and proportion were used throughout development and form exploration, as a means to understand and refine the materials through the hand. The result of these aesthetic choices, defined by Cheryl as ‘knowing through the senses’ (Akner-Koler, 2017), will also be felt by the users hands, but undoubtedly in a different way. In the case of weight, it is possible that the relative lightness of the birch, as a sensory cue to ‘quality’ (transferred to the food), might be overcome if the utensils themselves represent a quality of their own. This is a matter of personal taste. The question of this being more likely because the objects are handmade remains unknown, and cannot be reliably measured in any case. The multi-sensory effects of materials in the context of eating were shown within *Gastrophysics* to provide probabilities rather than certainties.



7.2. Conclusions

During the course of this year there have been several signs which have coincided with parts of my research, and provided encouragement that designing within eating and aesthetics is an area I find myself in at a good time. In March 2017, an article featuring Charles Spence was published in *The Guardian*, which introduced his work to a wider, international public audience, presenting ideas such as ‘the pleasures of the table reside in the mind, not the mouth’ (Davis, 2017). On design platforms, *Goûte* started to appear as an example of Gastrophysics at work- a product which ‘could make food taste better’ (Frearson, 2017). Although I moved away from trying to directly apply such scientific findings, I did take on the collaborative mix of placing designers with chefs, and the idea that there is value in questioning the knife, fork and spoon. A similar approach is also found in the *Steinbeisser* group, which was written about in the Norwegian craft magazine *Kunsthåndverk*, released in the closing phase of my project, in September 2017. This, in particular shows an increasing openness for questioning tableware and eating habits, and the *Kunsthåndverk* article places these ideas into a Nordic context. Although *Steinbeisser* made it tempting to follow some of the more avant garde ideas I had been working with when I initially discovered their work earlier this year, a more artistic and exclusive direction wouldn’t have allowed me to work with some of the other elements I found interesting within the timeframe of the master project. Also, with respect for the fact that I am delivering an MA in product design, rather than Fine Art, and although there is an obvious crossover between the two, I tried to find a balance between conceptual and constructive proposals which could work playfully in a social scenario, and also in calmer, domestic situations. In the *Kunsthåndverk* interview, Martin Kullik says that having arranged fancy dinners with fancy implements in recent years, he has started to use some of them in an everyday context (Holt, 2017). ‘De siste to ukene har vi faktisk begynt å bruke noen av disse redskapene selv’. (In the last two weeks we have actually started to use some of the tools ourselves) (Holt, 2017, p.14). Kullik obviously has a special interest in the subject, but that the conceptual utensils have blended into his daily rituals means that it could also happen to others too. The Lento utensils are an open-ended system, and could be adapted in ways which push usability challenges even further, with changes made to length, thicknesses, form etc. In that way they could exist in more or less extreme versions- at gastronomy events or in homes in Norway, and possibly abroad. In both worlds, they serve as a comparison and potential alternative to the stainless steel knife and fork, and by focusing more on function than artistic extremities in their current form, they are perhaps more easily communicated and imaginable in daily use even for the less adventurous. I am pleased they are at a point where they can be tested and discussed, and as Ian Gonsher has said, ‘Design is never finished, never complete. Every design project is an iteration on a much greater process that has been unfolding since our ancestors first learned to use tools’ (Gonsher, 2017).

On 19. September, Juhani Pallasmaa spoke at Kunsthøgskolen in Oslo, as part of their *Design Talks* arrangements. Although the title for his lecture was *Neuroscience for Architecture*, he explained that no matter how many books, articles or lectures one might give, they are all likely to contain the same fundamental messages and themes. Among them, and relevant for this thesis, was the subject of speed. I found the timing of the arrangement to be strangely perfect, given that I



had been reading him during this year and he was a fundamental influence in the way he made me think about senses and pace in terms of design. I left feeling that the core themes of my project have relevance, and it has resonated with others in the testing scenarios.

Slowness was not expected to be a welcome factor when designing for a restaurant, given that most are dependent on a steady flow of customers to sustain their business. The Lento utensils, however, were well received by the owner of *Kamai* once they were presentable, and will potentially be developed for use in a new sushi restaurant opening next year in Oslo. That they are handmade in limited series is apparently part of their appeal. The conversation is at a very early phase, but pricing comparisons used on the Jouw website, featuring objects used at Steinbeisser dinners, range from €50 to over €700. Industrial manufacturing is an option, and all of the Lento utensils could be developed and produced on a CNC wood lathe, but by gaining efficiency, they might lose something less rational. When clarifying his position on the use of computers at Khio in September, Pallasmaa said that they symbolize efficiency and if there is a problem, it is that they produce results which are too perfect. Imperfection, in his view, is something that has defined humans historically, artistically and biologically, and is a key ingredient within the design of buildings to which we can relate. This, I take as solid justification for a craft approach within design, given the close connection between the two, and the presence of subtle but recognisable marks created by the hand.

The founding motivation for this project was an interest in designing with and for a wider range of senses. The sense of touch physically connects us to the world and in a faster age in which so much of our communication, work and social interaction occurs virtually, design that celebrate haptics could potentially become more important. In a more simple way, as a designer, I want to work with materials, with my hands. I was curious to see what would happen if I considered senses to a greater degree, and I will continue to work in that way. Eating, as a platform for exploration, is fascinating because it will always be a multi-sensory activity involving a mix of materials, narratives and emotions, along with the potential to collaborate with other fields of knowledge. Chefs and designers, I have found, are not so dissimilar.

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