

A fabric you can eat

A fabric we can eat? How would that look or taste? While studying textile art & design I was always asked if I was (or presumed to be) "making clothes" or "designing fabrics". How did textile design actually come to be stereotyped by just fabric design or clothes in general? For instance, isn't it possible to eat textiles? Why not? Generally, people have assumptions with the word Textile. What does it really mean "textile"? It reminds me of text, to texture, and tactile. Just to make a clear distinction between textile, cloth and fabric, I looked up their definitions. According to the Oxford English Dictionary, a textile refers to any material made of interlacing fibres. Fabric is defined as any material made through weaving, knitting, spreading, crocheting, or bonding that may be used in the production of further goods such as a garment. Cloth may be used synonymously with fabric but often refers to a finished piece of fabric used for a specific purpose. "Textile" as it is defined actually refers to any material that is interwoven. The word textile has Latin origins, coming from the word textilis meaning woven, which originated from the word texere meaning to weave, from the root -tek meaning to make. I go back into my kitchen, to cook some spaghetti to weave.

What do we cook in Rietveld?

There is a technique to melt chocolate called *au bain-marie* which prevents the chocolate from curdling or burning while melting. There was a reason why this method was devised, and this was probably after some experiments. How could I possibly use the specific qualities of this technique to enhance the flavors of my regular chocolate cake? Could adding some chili and ginger possibly make it taste more exotic? What if I add some coconut oil into my chocolate, or grate the whole chocolate before melting it? Everything seems possible.

We find a recipe on the internet or in a cookbook, we follow the recipe to make the dish. Once the dish is made, it never really looks the same as in the pictures. This is what I call 'the hands of the maker'. Our measurement for 'a pinch of salt' differs just as we also cut, fry or bake things in different ways. Have you ever thought that failure could turn into something beautiful? Things happen naturally and experiments allow us to make 'mistakes'. Mistakes are not always a negative thing. When we make mistakes we learn to think, and thinking about things leads us to trying different things, like adding or subtracting a certain ingredient for instance. Thinking and making constantly influence each other. Just like when I developed the perfect recipe for my famous cheesecake, after my fortieth attempt. I started with a recipe from the internet, but I wasn't satisfied with it; the crust was too soggy or the cheesecake was too sweet. Every time I baked it I changed something in it. At the Rietveld Academy I've learnt to experiment with materials and explore their boundaries, just as I do with my cooking. Additionally, the techniques and theory taught allows me to place the work in context. For instance, learning the technique of weaving not only made me question the parameters of weaving itself (working with perpendicular axis and fitting within the frame), but also gave me the possibility that a strand of spaghetti could possibly replace a yarn between my warp. Could I perhaps then design a fragile, edible outfit? How can we perhaps put textiles in another context and change the way we perceive them?

When I started to write this thesis, I immediately thought of cooking. I thought about the relationship between my way of cooking and textiles. Could I find a meeting point between the two? Are there any similarities between the character of a kitchen and weaving? This thesis could function as a recipe, with ingredients that you have to mix, match, stir - or even grate- and then squeeze the juices out to give flavor, and eventually cook them together to form a dish. The characters of kitchens could be perhaps transformed into textiles or cooking could be performed the same for textiles. As my hands wanted to touch the rough surfaces of ingredients waiting on the kitchen bench for me to explore them, I thought; what if I could just cook my thesis with all the subjects (ingredients) that interest me? Each ingredient of my recipe is crucial to making my dish; if one part is missing, the whole dish misses a flavor. Like Thai coconut soup without the coriander, it is just not the same.



Spaghetti woven in between warp, soaked in red cabbage and left to dry, 2014

How to make a Bouillon

Bouillon, referred to as *stock* in English, is a clear soup made from the strained boiling water in which meat or vegetables have been cooked. It is usually used as a base for a soup, by combining it with other ingredients. It takes time to make a *bouillon*, but once it is prepared, you can make a delicious soup. Bouillon in this story is a metaphor for my last three years of education at the Rietveld Academy. The bouillon is composed of: a cup of experiments, one and a half tablespoons of theory, one handful of thoughtful mind, a tablespoon of instincts, and a pinch of text and tactility. This bouillon was used as a base in all my projects.

During my study at the Rietveld Academy I wanted to explore and research many different fields, organize events, make installations, write and document. During all of my exploration I always returned to food as it was the material that I could most connect with. Food is a mediator between me and other people; allowing me to meet people from diverse backgrounds, interact and talk with them, write about their culture, stories or simply observe the way they work in the kitchen. Food has always been an inevitable connector in our lives, connecting us to one another, and it is one of the main ingredients of building a network.

On the other hand, weaving, of all textile techniques, is the one I could connect with the most. The knowledge of how a tool (for instance the loom) is constructed and functions enables me to think of possible ways to translate a concept into a textile by the technique of weaving. Weaving for me is like a therapy to find my lost concentration. Movement allows me to think. Things flow differently when you get too caught up thinking about it instead of simply starting to do it. It is just the same when I cook. I take ingredients and explore their texture, color and taste first. While working with them physically, I think of all the ways to cut, cook and combine them to make a dish. I experiment until I find a recipe that works for me. In the process, I also look at my tools that I use to cook and I try to understand their behaviour in the kitchen. I read about the history of these tools, which I find very fascinating. Tools are all invented for a reason and understanding why they were designed the way they were allows us to understand parameters of these tools and to use them or manipulate them in the best way.

I often thought; how can I also cook some textiles, or how can I integrate food into textiles? I started simply, by weaving with food directly. Ingredients such as diced vegetables were woven in between my warp and then taken out for use in the kitchen. I wove spaghetti because spaghetti is also like a thread. It has a flexible texture, when it is cooked it changes form. I wanted to experiment with how threads combined with an edible material could be manipulated. As threads can be coloured with natural dyes, such as from cabbage, spaghetti also changes colour and taste when cooked with cabbage. This experiment resulted in the Spaghetti Dress , through which I was questioning if it was possible to cook something wearable, or the other way round: wear something that can be cooked. Exploration of spaghetti as a material that changes form made me think of textiles in relation to the body and how simply spaghetti can be formed around the body as well.

I went further with food and weaving, and started to collect kitchen waste from the Rietveld's canteen in 2014 to cook my yarns with. I wanted to bring out invisible colors behind the canteen counter (that came out from boiling vegetable wastes) back to the dining table. I also did the same from my own kitchen wastes and compared the color palette that came out from these two different kitchens. It was a quest to find out if there was a correlation between ingredients used in different kitchens and the color palette that came out of that kitchen. Maybe the cook's decision in what ingredients to cook, plays an important role in the outcome of the color palette. **Could we actually see a difference in colors of kitchens through textiles? Textile could become the medium translating colors of kitchens into visuals.**



Spaghetti Dress, 2014



Fabric from 1 cabbage & 1 carrot tops, 2014

Kitchen collective color palette, 2014



In the meantime, I started to research more about the origins of food¹, the design² behind food, eating designers³ and cultures behind food. There is always something happening around food; and I find it to be a fascinating subject/material to work with. While exploring the surfaces, textures and tactility of food, I cook these raw ingredients into something delicious to start bringing people into a specific place together, to meet new people and to start a conversation; start a network. As a by-product of my cooking, I collect the waste of the ingredients such as avocado skin, onion peel, banana peel, vegetable peel, etc., to cook them into a delicious soup together with silk yarns to serve for the weaver (my other position). As a cook, in the kitchen both food and yarns are treated with such care and they both meet in the cooking pan. As waste dyed yarns were the outcome of my cooking, I, as a weaver, could perhaps **find a way to use waste as a medium to connect people/their stories to textiles**.

The Woven Stories

In the summer of 2014, I was part of an artist residency program at Blooming Hotel in Bergen, North Holland. A hotel is somewhere you normally stay when you are on vacation. It's a place that becomes a temporary home for the duration of your stay. However, you never truly involve yourself in the place as if it is your own. You never get involved with the employees more than through just a few short conversations. It was quiet unusual for me to stay in a place where I could never really feel 'at home'. Even though we were given an apartment, it had rules, which I had to abide by, unlike my own house where I can just be myself. I missed cooking; I could not feel the hands of the maker in my meals. I only saw the cooking crew at the bar for a drink after their shifts. I kept wondering, how was my food prepared, where did it even come from? Who was the person responsible for my meal? What were the stories behind these people? What could I possibly learn from them? Finally the question, how could I translate my involvement with these people, the hotel, and its surrounding into textile? Before my project stepped into the kitchen, I was collecting plants from the natural reserve to dye my silk yarns. My first idea was to bring these undiscovered plant colors from nature back into the hotel whose buildings now dominated the surrounding environment. In the meantime, as I still pondered my meals and the people involved in preparing them, I found a way to enter the kitchen myself. I ended up volunteering in the kitchen after meeting the chef. I observed, learned techniques, discovered new ideas and eventually also collected the kitchen waste. I visited the garden of the hotel to meet the 'maker' of the ingredients, to learn from his knowledge about gardening, and eventually to collect compost. I also helped him collect berries, whilst having interesting conversations, learning about his life and work during forty years employed at the Blooming Hotel. With my every visit to the garden, I started to collect wastes such as berries that were on the ground or some cut off pumpkin leaves or dead flowers. Waste was always part of the process. All these dyed yarns came together with the project called the living textile. I called it "living" because the colors of the threads that are woven are in constant change4, just like the hotel that keeps changing; guests, staff, menu, garden, natural reserve surrounding it. Change is a natural process. A weaving loom was a great tool to bring the attention of people visiting the hotel to the project, because for some, it was a tool in an unfamiliar place. Some did not even know what this tool was for, as they have never seen how a fabric is actually constructed. In this way, the loom was a connectortool between me and the visitors, and brought insight into the project and to the untold

- For example the origins of tapas. Tapas originated in Andalucia, Spain for the king Alfonso the tenth. Due to his illness, he had to take small bites of food next to his wine between meals. He decreed that no wine was to be served without something to eat accompanying it; as a precaution to counteract the adverse effects of alcohol on those people who lack money and drink alcohol on an empty stomach. Furthermore, the word "tapa" translates as "lid", a "cover"; a tapas plate was to be placed over the wine so that it also keeps the flies away from the alcohol. "from the book A Curious History of Food and Drink p.56
- 2 "Even the simplest cookie has designers behind it who decides on how crunchy the cookie should be to make you feel that it is freshly baked." quote from a lecture by Honey & Bunny productions: Martin Hablesreiter & Sonja Stummerer, year 28 May 2010.
- 3 For instance, Marije Vogelzang is a Dutch eating designer who designs special events and ceremonies around food. One of her works, inspired by Chinese traditions, involves inviting guests to crack the ceramic that was covering the food.

"The Living Textile" from Artist Residency at Blooming Hotel, Bergen, North Holland



stories of the hotel.

As a weaver, my main focus was to make a colour palette from the yarns that I dyed. The palette would be a representation of the interaction of each colored yarn (as a story) with another. All the stories were somehow connected, and interacted with each other; they were related to one another. The color palette is changing in time (due to contact with light) according to the varying durability of each natural color that is woven. It stands also as a metaphor for stories that are changing; nothing in the hotel really stays the same. I came to realize that the fabric did not matter for me as a material to put into a certain context. It operated more as a tool that visualized the undiscovered colors of the hotel (kitchen and garden) and its surrounding. The choice of weaving these colors into grids of squares was intentional. The hotel felt to me very systemized and unnatural. It was pretentious to be one with nature while I could only feel wild and neutral outside of the hotel. I realized that waste is what produces and makes the real narrative of my stories; it contracts all the information together. I decided to enter into public or private kitchens by volunteering as a cook. Volunteering is an altruistic activity to promote goodness and improve the human quality of life. It also produces a feeling of self-worth and respect, as there is no financial gain involved. It helps me to create a platform where I can connect with others but also improve my cooking skills. The service of cooking that I provide is not only beneficial for myself but also supports the benefits which are held to raise money for those in need (for instance refugees). It also brings people to a place for political discussions and debates about on-going subjects. This is the reason why I recently decided to take part in kitchen crews at volkskeuken (people's kitchens) throughout Amsterdam. I feel that the notion of 'giving and receiving' is much more valued in the exchange of skills without any financial profit. It creates a notion of solidarity; the cooking space becomes a collective

Collective Kitchens

space.

In squat kitchens, I always met people with diverse backgrounds. I came into contact with them to hear their stories: how they made the kitchen their home. It also fascinated me to cook with them because they approach ingredients with a cultural or traditional background. I wrote an essay last year about how we understand food differently because of our cultural understanding⁴ and asking if we can actually understand food without the knowledge of this 'eating culture'. In the squat communities, I not only wanted to explore, learn, and observe but also to keep a journal about my experiences and inspirations in these squats due to their history, political activities and their aim of not being commercial. The squats are interesting for me because they establish artist workplaces, stages for performing artists and alternative events. One of the kitchens I got involved with is the vegan⁵ restaurant De Peper in the old Film Academy of OT301, which was owned by the squatters and turned into an alternative cultural centre with a stage for music and film, and an artist workplace. I also volunteer as a cook in the kitchen of Vrankrijk on the Spuistraat, which exists since 1982, famous for political views; debating globalization, capitalism, animal rights, anarchism and feminism. Squats have become alternative hangout places for a variety of people from students to expats and former political activists. They aim to bring people together, also those remotely politically inclined. They are great hideouts from the indifferent outside world. In the squats, strong opinions underpin sharp political ideologies, which stimulate interesting discussions about diverse topics. It interests me to write about these subjects; the cook who enters squat kitchens ending up being a journalist at the same time.

⁴ For instance, during an experiment, Martin Hablesreiter brought a cake as a gift to Japan. The recipients ended up slicing the cake into squares, which is strange in many cultures, as the cake would normally be sliced into triangles starting from the middle. From a lecture by Honey & Bunny productions: Martin Hablesreiter & Sonja Stummerer, year 28 May 2010

Veganism is a way of living that seeks to exclude all forms of exploitation of, and cruelty to, animals, for food, clothing and any other purpose. Having a vegan kitchen also means that everybody can benefit from the food that is made. There are many debates on why we should be vegan, not only for animal welfare but also making the best use of land for more food.

Waste Consumption

Going back to my position as a chef in the kitchen. I produce waste as I cook. Waste was always something that concerned me. We produce 0.8 billion kilos of food waste a year in the Netherlands alone, whilst elsewhere on the planet people work for a dollar a day, and others die from starvation. I started to think of alternative ways to deal with waste; the possibility of what it can become and how I can somehow integrate it into my work by exploiting and re-using it. As I started to volunteer in various kitchens throughout Amsterdam, I started to think more about food and our access to food. One thing I recognized was that we rarely question where our food comes from. We have the luxury to eat sushi in Holland and we all know that sushi ingredients travel from miles away. When there is an "unlimited" sushi bar, we tend to overeat, in a subconscious "eat as much as you can" mentality. Why do we eat when we are not hungry? What are our limits of hunger? Is ignorance really bliss when we are trying to be ecological but still consume imported products? How many of us actually check the labels on food, where it actually comes from. We are loosing the whole connection to how food grows, in which circumstances it is stored and transported, subsidized and made cheaply available to us; there are thousands of imported products and yet we still produce so much waste. There are some initiatives around Europe concerned with reducing or re-using waste. For instance, In Stock is a restaurant in the Westerpark where a group of people (who were co-workers) cook with food they rescue from supermarkets that is about to expire. Generation Alpha is a group of people who organize benefits/discussion nights, for which they rescue food from markets to cook for the guests. Guerilla Kitchen collects waste food and redistributes it to the public for free. Culinary Misfits in Berlin is a small collective also collecting misfit products from farms to cook. I myself go dumpster-diving, rescuing unwanted (blemished, old or damaged) fruits and vegetables from markets. I then cook and make delicious dinners with these ingredients with friends. The interesting thing about cooking with leftover 'found' vegetables/fruits is that I start to think more creatively, re-inventing fusion dishes. I like to reconnect with my friends through food, so I share what I find. As food is becoming more and more expensive in Turkey, I was discussing with a Turkish friend about how good food is only accessible for the rich nowadays. If we want to eat biological food, meaning no chemicals involved in the process, we have to pay more. So only the rich can take care of their health? I wondered, how can we slowly change this system? How can biological food also become accessible for everyone?

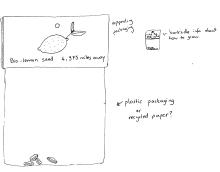
Exploiting the Lemon

Waste is something we don't pay much attention to, or at least I didn't before I started to volunteer in various kitchens. How many of us thought of the possibility of growing lemon seeds after using the juice of the lemon? Or of grating and freezing the lemon peel to be used later in a delicious cake (instead of going to a supermarket to buy artificial lemon flavor). How could we miss the most important part of these ingredients, the seeds? I took the initiative to collect seeds and to grow them. Wouldn't it be great, to walk in Amsterdam and suddenly find a biological pumpkin lying on the ground? And it would be available for free. By volunteering in the vegan bilogical kitchen De Peper at OT301, I get access to collect seeds while cooking. In collaboration with my gardener friend, we aim to grow these seeds in public spaces in the city of Amsterdam. I also dry and pack these seeds with plastics and paper that come out as waste from kitchens where I volunteer, to give away to people during events such as my own graduation show. I aim to bring awareness into food waste also in terms of re-growing food with seeds that we normally neglect and waste. If only we know how to grow them, we could help the food production to become more local and diverse and countries like Netherlands could become more self-sufficient. I grew up with a mum who loved gardening and she would grow almost everything herself. She carries seeds from miles away, from a simple fruit she eats in Thailand, or the seeds of plants she finds on the street. Seeds are the most portable part of the plant. If the climate is suitable and the earth fertile then the seeds will grow. There is always a possibility, we can never know without trying, without giving it a chance. Through these seeds, I would like to visualize



An Avocado Plant.

Once picked, an avocado ripens within one to two weeks at room temperature. The process is faster if stored with other fruits such as apples or bananas, because of the influence of ethylene gas. It takes four to six years for an avocado plant to give fruits, as it may be as long as ten years.



growth-time for each seed through graphics so that as consumers, we can visualize how long it takes to grow the food we eat, so we become more aware of the value of time that was put into food production before we waste food.

The Journalist who uses yarns to write

Everytime I cook in a different kitchen, I feel the urge to take note of the interesting subjects I find myself immersed in. I not only learn so much about food as I explore, but also various cooking techniques and traditional dishes. Personal stories from people whom I cook with also fascinate me as a journalist. I feel the urge to share my experiences through writing, with the hope of making the public more aware of our food, and the waste that is connected with it, various cultures and, habits, but also subjects of discussion from squats. I, as a journalist who is at the same time a weaver, want to write with yarns. As waste comes out of the chef's kitchen, in the form of colored yarns, the weaver wants to weave these yarns as if she is writing like a journalist. Each color that comes out of a kitchen is not just a color, but also a story, written in between the weaver's warp.

The Loom is a tool, a table, a painting

In order to weave fabric with my natural waste-dyed silk yarns, I decided to first conduct research into looms, to understand their history, purpose and possible use. I came across so many different types of looms around the world. They all had different constructions and I, as a weaver, am always curious to know how they function. Is the design of the loom a possible personal solution for the need of the weaver? Everyone thought differently about constructing a loom depending on what was available at the time. As a weaver, it has always been a quest for me to understand how each loom works, as if understanding the mind of the person who designed it. I could only work with each loom if I understood how it functions. Recently, I started to think what if I go back to the beginning and construct my own loom or manipulate existing essentials (shafts, handles, etc.) in the way I understand it? Possibly, the loom could adjust to my needs rather than me adjusting to the tool. We are usually given a tool and told how it is used, not from where it originated and why it was designed the way it was (or at least how the design evolved). If the design does not meet our needs, we never use these tools again (unless for something else). I have a friend who uses onion or lemon bags (made from fish-net textile) to scrub herself in the shower because the bags are made from the same material as plastic sponges which are sold in the supermarkets. It might sound strange for most of us, but actually why couldn't we do this? Why do we place taboos on materials, insisting that they must meet their design purpose and not be used in another context? Couldn't my loom perhaps become my dining table at the same time? Or perhaps a painting hanging on the wall? Or even a standing sculpture? I could construct a loom, which could also translate my interaction in kitchens and wastes in a way that the loom could become my dining table at the same time. The dining table is an object on which people dine, talk and interact with each other. People around the table change - just like stories also change. The cook produces waste in her kitchen, in which she also cooks the weaver's yarns (embedded with stories) that are woven into a fabric through writing. The food is their meeting point.

Going back to tools in the kitchen. Knives are tools designed to break, deform and become damaged, even when you are cutting just a leek. We lack the desire to tear meat from the carcass with our bare teeth, therefore we invented cutting tools to do the job for us. Knife is the oldest tool in the cook's armory. Even during the Stone Age, humans fashioned different cutting devices to suit their needs. Working in different kitchens, I realized how many different type of knives exist. The Japanese knife santoku is a multitasker, currently regarded as one of the most desirable all-purpose knives for the home kitchen. Santoku means 'three uses', because santoku is equally good at cutting meat, chopping vegetables and slicing fish. Someone who is not familiar with this tool might not approach and use this tool the same way a Japanese person might. In China, an entire approach to eating and cooking was founded on one knife, the tou, the Chinese cleaver. The tou exemplifies the principles of "minimax": maximum value from minimum cost and effort, meaning the maximum cooking potential is obtained through the use of the minimum of kitchen

Tou, the Chinese cleaver *******

utensils. *Tou* is designed to be useful for everthing from splitting firewood to scaling fish, crushing garlic, sharpening pencils, or even cutting one's nail. From ancient times, the characteristic of Chinese cookery was determined by the intermingling of flavors through fine chopping. Somehow I always saw this knife as a tool to chop hard and big ingredients like splitting a bone, because I associated the shape of tou with that of an ax, used for chopping wood. This is the reason why tou never ended up as the number one item in my kitchen. What if I work in a Chinese kitchen with chefs who only use tou to chop? I first need to understand how to hold a tou, my body needs to adjust to this tool and the way tou functions. Does the Chinese food I cook without the tou tastes the same as traditional Chinese cuisine cooked by a chef using the tou? How much importance does tou actually carry in preparing a Chinese dish? Tou in fact was designed for multifunctional purposes, but probably none of us actually thought of cutting nails with tou. A loom, on the other hand, is designed to produce fabrics. It is designed to be used as a horizontal (for mostly household or fashion) loom or vertical (tapestry) loom; it never functions as both horizontal and vertical (at least not that I know of). It doesn't give you the freedom to weave in unconventional ways: weaving vertically while the warp stands horizontally. I would like to use my loom, like a Chinese tou or Japanese santoku, for different purposes, which adjusts to my position as a chef, a weaver, a journalist and an artist. Then the tool finds its meaning, adjusted to the maker.

Weaving with Personal Meanings

In fact, the word *loom* derives from the Old English word *geloma*, meaning *tool* or *utensil*. Technology has improved in such a way that the loom was taken out of the specialized hands of the weaver and placed in factories where a relatively unskilled technician could monitor the production of cloth. In more and more places around the world, the tradition of hand-weaving is dying because of economic reasons (it is too expensive). People underestimate the value, time, meaning and originality of handwoven pieces because value is assigned to only the 'end' product.

Archaeologists and anthropologists viewed the loom as evidence of a certain state of cultural development in ancient and primitive societies. The principles, the tools, even the language of weaving have acquired, by their fundamental importance, symbolic and metaphoric value in our lives. "For instance, it is said that in China the warp, firmly fastened to the loom, symbolizes the unchangeable forces of the world, while the weft, shifting back and forth, symbolizes the temporary and transitory affairs of man. In India, warp represents the eternal existence, and the weft symbolizes the stages of an individual's life." ⁶

The use of a tool can tell us more about the culture than the tool itself. For the Tzutujil (sootooheel), Maya women of Santiago Atitlan, weaving is still a metaphor for birth and creation; weaving procedures, designs and weaver herself are all parts of their birthingweaving concept. The pegs of the warp board refer to head, heart and foot. The warp is tied to a tree or post, symbolically "Mother Tree Deity" and represents the umbilical cord. The top part of the loom represents the head of the person while the bottom is the bum. The lease stick represents the ribs. The weft that passes through the heart is 'nutrition'. While weaving the motion of the shed, opening and closing represents the beating of the heart and the movement of the weaver represents the contractions during birth. After weaving an inch, the loom is turned top to bottom just like the fetus turning in the womb prior to birth. The backstrap loom weaving itself (the fact that weft passes in between warp forming an 8 shape) is a metaphor for unity and infinity of Cosmos. Maya women exhibit their personal history, ethnic identity and the design of the Universe in their cloth by weaving.⁷ During my travels in Turkey, I met a woman who was telling me the story of her mother spinning her own silk yarns. She told me that she still keeps her loom in her house but doesn't really know how to use it. The knowledge of how to use this tool evidently was not passed on to new generations because industrially produced fabrics replaced the necessity of hand-woven fabrics. Consequences of this includes dying originality, creativity and personal meaning that was once woven in the fabric. Patterns that once held personal meaning slowly disappeared. The reason why I, as a weaver, want to work with a handloom is to understand

my tool in the process of creating. I don't want to take the tool as a given but to examine it and manipulate it with a personal meaning that makes sense to me. It makes me wonder, if for Mayan women all parts of the loom metaphorically represent part of the body, and the designs all have meanings related to their ethnic identity and personal history, how do I as a weaver see that meaning in my loom in relation to my own body and the way I weave? I would like to reconstruct personal meaning into textile, and change this tool, the loom, in my own way to translate these meanings.

The Text in Imagination

It is quiet fascinating that when we dream of an image, we can see it without spoken words, sounds or colours. In the waking state of a dream, there is usually an immediate perception, feeling, mood, as well as floating memory images in the foreground. When we imagine even during daydreaming (being in between dreaming and fully awake), we immediately see images. In Greek philosophy it was believed that a replica of an object enters the eye and remains in the soul as a memory, as a complete image. There is a saying in Turkish: "who knows more; the one who reads a lot or the one who travels a lot". This saying refers to the visual information that stays within the memory more than text. Let's face it, we are visual thinkers, in fact 65% of the population are visual learners. It is because 50% of our brain is actually dedicated to visual functions, and images are processed faster than text. Our sight is the strongest sense and receives significantly more information than our other senses. We were all born without any language, we all interpreted the world through what we saw as babies. Language came afterwards. Therefore visual signals even in textiles carry great importance in perceiving data or information.

here is a common assumption that people think in language, and that language and thought influence each other. Many people around the world find it difficult to express themselves through a language which is not their native language. Body language becomes more important when a verbal language is unknown. It is the same when I cook with the Italian chef in the restaurant. When he doesn't understand what I mean, I just demonstrate by doing. Richard Sennett writes in his book The Craftsman, how language struggles with depicting physical action. This is especially evident in instructive languages that tell us what to do. In the workshop or laboratory, the spoken word seems more effective than written instructions. It is because you can discuss something face-to-face with a speaking voice so the learning becomes local. Many times my friends ask me what I put in the dishes I cook. After describing the recipe, they try to cook the same dish, but it never turns out the same. Then, they ask me if they can cook with me so they can observe while I cook. This is clear evidence that a 'show, don't tell' methodology works as we learn and understand things more easily visually.

As children, we watched cartoons which most of the time were silent, like Tom& Jerry. This is a story that is told though moving images, no spoken words or text. How can textiles tell a story, or a chef tell a story, as images can tell a story? As a cook, my performance in the kitchen is assessed once the meal is on the plate. The plate is the visual translator of my hand-writing. Well, the smell of the food in fact is the first element of my performance that reaches the audience. I can decide as a cook what the plate will look like, how it is organized and decorated. In the end, the whole preparation reaches the consumer through this plate. It is the closing scene as a performer, in which I turn into a spectator. It is quiet fascinating that in Japan, the cook's body has its own narrative, its own text⁸. I observe the audience as the food starts to play its own role. The visual presentation of the food stimulates the appetite. This is also the strategy of food-advertisements; they make the food visually very attractive through color and presentation that unconsciously awakens our appetite. We judge everything by appearance in every aspect of our lives, even sometimes the book by its cover. We eat even when we are not hungry, just because the food is visually appealing.

^{8 &}quot;In Japan the body exists, acts, shows itself, gives itself, without hysteria, without narcissism, but according to a pure -though subtly discontinuous -erotic project. It is not the voice which communicates, but the whole body which sustains with you a sort of babble that the perfect domination of the codes strips of all regressive, infantile character...it is the other's entire body which has been known, savores, received, and which has displayed its own narrative, its own text."-Chapter Without Words from The Empire of Signs by Roland Barthes p. 9, 10

What if I apply the same attention to food waste; make it so visually appealing that the audience would like to eat it. However, what is served is a combination of woven food and yarns, with the possibility to eat them. The artist questions our irrepressible hunger for visually appealing food. My yarns take the lead as I cook and bring people into direct contact with what I consume (dumpster-retrieved waste food) which I also eventually weave. The woven fabrics are 100% naturally dyed with no chemicals involved in the process. They certainly will taste good.

The Anonymous Maker

We also judge textiles by their appearance. If we cannot taste, smell, read or hear textiles, we can only judge them by their visual signs and symbols and by their tactility. These visual signs and symbols, in some cultures, are chosen for a reason, to communicate specific information. For instance, there is a specific symbol woven in Turkish carpets to indicate that a girl wishes to get married. The carpet acted as a medium to indirectly express the wish of the girl without directly speaking it out loud. Most people who buy a piece of patterned carpet, don't question the patterns on it or try to read meanings behind its symbols. Some textiles loose their value over time as the meanings behind their symbols are flattened, limited, unseen, unrecognized, unquestioned. They cannot go beyond being a non-living household or personal item. They are exploited for their functional use. Textiles, with their symbols, used to have importance beyond their practical or aesthetic purposes within a household. Hand-weaving, before being replaced by mass-produced textiles, was much more meaningful in the way it was constructed.

Recently, I bought a sweater from a flea market that contains geometric patterns. I wear this sweater because I like the pattern and its color. Like many other consumers, I never actually questioned who had designed the sweater. I did not wonder (while purchasing it) about the possible meaning of the pattern. How did it become fashion in the first place? Who was involved in the process of making it? The story was missing, and I was not connected to my sweater. I couldn't see the hands of the maker, as the fabric was industrially produced. The sweater did not have meaning outside of its functional purpose. The label says 70% acrylic and 30% wool, made in China. That's why it feels soft. Nowadays, most clothing is made with mixed yarns, which means it is more difficult or even impossible to recycle. How does this information matter to the consumer if they don't even know the environmental impact of their clothing? Most of us want cheap clothing that feels and looks nice, the rest does not matter very much. It is unclear for me why a designer chose this pattern for this sweater. After observing its construction, I can tell that this pattern is produced via industrial machines that used mixed yarns. The fabric was sent to (let's say) Taiwan where a woman most likely did not think for whom she was sewing this sweater, but was purely finishing a task to survive. After being packaged in plastic, the sweater ended up in a store and was bought by a person. After a while this person did not wear this sweater anymore because her taste changed. I liked the sweater, so I bought it. I support the buying of second-hand clothing rather than new clothing. I only know the last part of the story because I met the girl who sold me this sweater. Eventually, the rest of the story was just an assumption. Last year, while working on a project (deconstructing the Frakta, blue cheap bags from IKEA), I found out that the tag carried the signature of someone who had probably sewn the bag. I tried to chase the maker, so I contacted IKEA. It was an unsuccessful attempt, and the identity of the maker remained a mystery. The story was untold and connections were missing. The only thing I knew was that there was this anonymous someone who had actually sewn this bag for me, which I bought for fifty cents.



Edward Tufte is an American professor in statistics, who says that as long as data is represented accurately using tables, charts or graphs, it enables the viewer to see trends and patterns in the data. It helps to make complex data more accessible, understandable and usable, as we are primarily visual learners. If we look at the two axes of weaving, the warp



Modern Turkish rug with symbols

and the weft, they also intersect perpendicularly just like in Cartesian coordinate systems. Woven textiles, in this way, create a platform in terms of two intersecting axes, on which data could be visualized and organized.

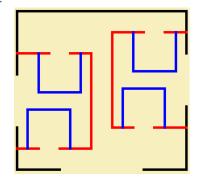
The Parameters of Weaving

The virtual bead loom originated from the Native Americans. They were highly inspired by mirroring images in nature, and often used reflection symmetry in their weaving patterns. The Navajo Rug for example was inspired by this idea, and this is the reason why the design encompasses four-fold-symmetry. The same symmetry can be found in Yuppie parka decoration. The Yuppie parka was designed to go around the x- and y- axis of a Cartesian coordinate systems⁹ where the origin represented the belly button. Four-fold-symmetry is a deep design theme in many Native American cultures as it is an organizing principle for religion, society, and technology.

Ron Eglash, a professor at Rensselaer Polytechnic Institute in N.Y. uncovered mathematic concepts encoded in beadwork, basket weaving, Navajo rugs, modern music and even cornrow hairstyles. He develops computer programs that reveal the mathematical principles of grafitti art and the architecture of African villages, as well as Native American beadwork using the Cartesian coordinate systems. He found a link between culture and math when he saw photographs of Africa taken from airplanes; huts in many villages are built in circles of circles or in rectangles of rectangles. In mathematics, a pattern that repeats itself in different scales is called a fractal. Fractals often appear in nature, like a tree splitting into branches that split into other branches. The people who live in fractal-based villages in Africa use math to reflect spiritual concepts, such as 'life is a never ending cycle and our ancestors are always with us'. The repeating patterns can also represent the desire for unending health or wealth. Eglash uses these programs to teach children something about the history of their community. In the end, math becomes a bridge to culture.

The Cartesian coordinate system is also executed nowadays on geographical maps. A Map is divided into squares and information about a specific area can be found by following the axes. Taking the Cartesian coordinate system into consideration with woven textiles, which axis would I call my warp and weft? Would my warp (constant/fixed) represent the place I volunteer, and my weft (changing) represent time? If I start to weave where do I start? At the top or the bottom? From right or left? If the horizontal x-axis is time, does everything behind this line (towards me) present the past or the future?

The walls, fences, buildings, and rooms of an African village sometimes have a pattern that repeats itself. Blue rectangles are miniature copies of the red ones which are miniature copies of the black rectangle.



The Upside Down Textile

An image has an arrangement of elements to direct our perception. On the other hand, while I type this thesis, words follow from left to right because that is the way I understand the information. In Indonesia, people eat with their right hand because the left hand is used for another purpose. Someone who comes from another culture might eat with his or her left hand, which would be considered 'wrong' in this culture. If we have a better understanding of individual cultures, do we understand their textiles differently? How do we approach these textiles? The same information could be perceived differently. I, as a weaver, while questioning the parameters of weaving, consider how direction can change the way we look at the same information.

Should I as a weaver reconsider these reading directions while weaving because of cultural understandings? How could the information be read in different directions through the same textile? In Japan, the program for computer loom is arranged in a way that the information is understood and constructed starting from the right going towards the left. In western society, it is the other way around. Just as we work on computer programs that are arranged according to reading direction, could we also perhaps weave textiles with the same understanding? Maybe a fabric is universal, but understood differently in different cultures.

Navajo loom, 19th century, Brooklyn Museum.

"Did the weaver start to weave this fabric from top, towards the bottom? If it is made with a backstrap loom, then a weaver could recognize that the loom is exhibited upside down"



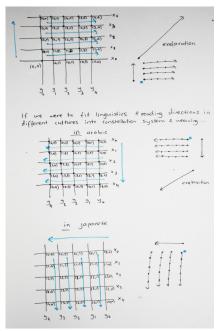
he Cartesian coordinate systems was invented by the philosopher, mathematician and writer René Descartes in the 17th century. It was the first systematic link between Euclidean geometry and algebra. A lot of geometric shapes such as curves can be described by Cartesian equations because of involving 2 axis that cross each other and points lying on the shape.

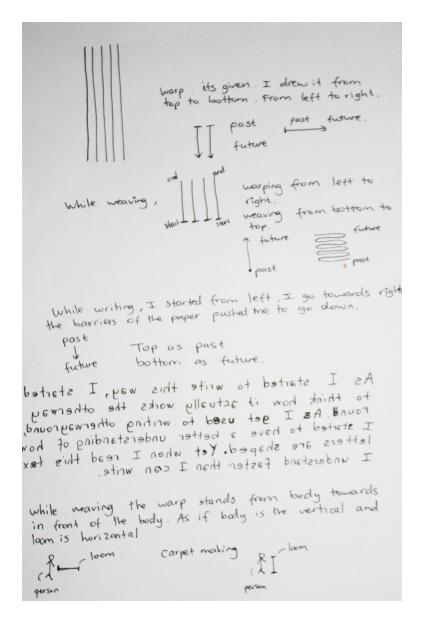
Linguistics and Systematical Order

In the past decade cognitive scientists began to measure not just how people talk, but how they think and whether our understanding of space, time and causality could be constructed by language. In Pormpuraaw, a remote Aboriginal community in Australia, the native languages don't have the terms like left and right but instead position is explained in terms of absolute cardinal directions (north, south, east, west). To find out about how Prompuraawans thought about time, research was carried out by Lera Boroditsky, a professor of psychology at Stanford University. She gave sets of pictures that showed temporal progression (for example pictures of man at different ages, or a crocodile growing, or a banana being eaten). People had to arrange the photos on the ground in the correct temporal order. Each Prompuraawan was placed in a sitting position facing a different cardinal direction. While English speakers arranged the photos from left to right, and Hebrew speakers arranged them from right to left, Prompuraawans arranged time from east to west; so facing south, time went from left to right, facing north right to left, facing the east, towards the body etc. They were not told which direction they faced, but they used their spatial orientation to construct their representations of time¹⁰. If the direction of language also affects the way we perceive time, would a Japanese person start to arrange things from top to bottom, from right to left? If time is categorized as past, present and future, in Mandarin, the future can be below and the past above. In Aymara, spoken in South America, the future is behind and the past in front. While weaving, how do we see the past and the future? Do we weave towards the future and roll the past? Thinking of the direction of writing with which I am familiar, I started to consider how different reading directions might influence the way we see information. Someone who is familiar with weaving would know that it is a system of intervening threads constructed by vertical and horizontal lines. A warp is static and moves in a figure eight motion as the shafts are pulled. The weft is pushed in between the warp going from left to right, right to left, constructing the fabric. Just like the way we also read this text. As I start to write from left to right, the writing itself is operated in a motion that I understand, but which might be unusual for an Arab writer. I started my text from the top and I'm going to the bottom, the top became the past while I write towards the future. When I weave, I do the opposite; I start my fabric from the bottom and weave towards up as the future, from left to right, right to left.

We can clearly see evidence that western languages influenced changes in traditional text directions in Eastern countries. Nowadays, we are all familiar with the typical horizontal text that goes from left to right. As a weaver, I try to understand the direction of my time within weaving. How could I inscribe time (past, present, future) in the weave? How would I organize my data then considering the time change?

It is important as a weaver to understand how my body is positioned while weaving, and how weaving in various ways influence my perspective. How did people start to weave and how was the loom positioned? Why did we actually change from a warp-weighted loom to a horizontal positioned loom? The earliest evidence of warp-weighted looms (vertical looms) comes from sites belonging to the Starcevo culture in modern Hungary and from late Neolithic sites in Switzerland. This loom was used in Ancient Greece, and spread north and west throughout Europe. The defining characteristics of this loom are the hanging weights at the bottom. The weaver starts to work from the top towards the bottom, and when she/ he reaches the bottom of the warp (which is attached to the weights) the woven part can be rolled around the top beam and the additional lengths of the warp at the bottom can be unwound from the weights to continue. The horizontal loom was introduced during the medieval period. Around the eleventh century, it was written that men wove with their feet, while women used a cane that moved up and down. The women's cane refers to the sword beater that the weaver on the warp-weighted loom had to use to beat up each passage of the weft. If we look at illustrations from an early thirteenth century pattern book, we see that mostly women were associated with warp-weighted looms while the horizontal looms were displayed with male figures. The appearance of men with looms signaled the





birth of European weaving as a commercial enterprise- credited to the development of the horizontal loom. The horizontal loom made it possible to weave long lengths of cloth at a speed that made the warp-weighted loom appear primitive.

The Araucanians¹¹, as with many primitive cultures, were unable to compete economically with industrially produced textiles. In some tribes contact with the western civilization caused the destruction of the unity and homogeneity of their society. Those crafts that were embedded in certain religious rituals, like weaving often was, unavoidably suffered as the culture and ritual collapsed. We can say that contact with western civilization often broke the continuity of primitive cultures. This break interrupts the step-by-step process of invention; because in many primitive societies, invention was made through responding to the need while using the looms. Looms were re-invented over and over again, trying to find the most convenient way to weave a fiber into a cloth.

Araucanian women weaving, Chile. 1890 (ca). Photo by Obder W. Heffer



Process, outcome, response.

An artist's work could be subjective, which could not always be understood by the spectator because it was a projection of his/her own opinion. We could have a story behind the object, but how do we express this story to the outer world? As an artist, I wonder about how communicative my work is and how it is understood or impacts the audience. When I talk about my project, I sometimes here people asking "But what is it really about? Is it about sustainability?" They wonder because most of the time they try to imagine something physical rather than think and understand it as a process, which could broaden perspectives

11 Araucanians are any member of a group of South American Indians that are now concentrated in the fertile valleys and basins of south-central Chile.

on textiles in general. I can almost hear them thinking "but if the colors fade away, what's the point of making it?". Why does everything need to function and last forever in the first place? Even our technological gadgets are designed to fail after completing their life cycle. So, we buy new ones, instead of fixing them (repairing is more expensive). We constantly produce more waste because we are part of a consumerist society where we want to have everything, but cheap. In order to become sustainable, don't we first need to change the way we think? The importance of my project actually lies more in the awareness, in the way we look at things. We never really thought that waste could produce color; colors that fade away but sincerely present their natural fading process. We did not think of textile as a living thing. We never really thought about eating textiles, because textile connotes a fabric to be used. Yet if we expand or transform the definition of textile, we would see that food is also a textile. By raking up colors from wastes through textiles, the audience starts to perceive waste in another perspective, as a living thing. Textile connects with food directly. It is unlikely that someone used a loom as a dining table or as a painting. By changing the construction, it becomes a possibility. The loom could also be used both horizontal and vertical, passing the weft vertically as the warp is positioned horizontally. Textile contains data, interwoven with stories from kitchens/places in accordance with time; as if the textile is a calendar. Through packaging and giving away seeds for free (with the recipe of the dish made from the fruit or vegetable where the seeds originated), seeds find life again instead of ending up in the garbage. It is also the act of weaving with waste that carries importance for me as an artist. The action of reconstructing the loom is to adjust a tool that functions for me both as a cook and a weaver. I apply different directions of reading text into weaving (changing the position of my frame) as if the weaver suddenly changes position and becomes a journalist (like writing through yarns). On the other hand, waste is not just waste, the color is not just a color; they have been embedded with a story.

The Potatoe who lost its speckles

Two centuries ago, Immanuel Kant casually remarked, "The hand is the window on to the mind". The way our hands grip, touch and feel affect the way we actually think. In this way the hands of the maker play an important role in producing or dealing with a material. Victor Weisskopf once said that if people let the machines do the learning, the person serves as a passive witness and consumer of expanding competence, not participating in it. If we were to really understand how something works, for instance understanding how a loom actually works, we could better translate our ideas. As our hands start to work and think, we can better sense what we make and how we make it, and in return we can also think of how to solve problems. I don't mean to blame technology, as technology improved a lot of things, but I do believe that through western civilization and industrialization, and a consumption based economy, more and more distinctive cultural items and values have and continue to disappear. Through a computer loom we no longer understand how the pattern is constructed because the machine communicates with the loom and tells which shafts to pull. As abstract as it gets, the pixelated drawing on the computer is sent through a system where the loom recognizes and translates this drawing onto the fabric. Industrialisation has affected not just textiles, but also our approach to food. There are easily accessible, often cheap 'fastfoods', as well as prepared and packaged foods, in every supermarket. We are loosing the connection to a potato that grows in the earth and has traces of earth around it, its starchy surface experienced through peeling. We don't know how to find the right temperature to cook, and rely on pre-cooked foods. The busier people get, the less time they find to cook and connect with their food source. This makes us loose our connection to the earth, food and how to cook. I experienced this as a volunteer at De Brouwerij¹² where I cook with patients. They go to the supermarket and buy packaged potatoes because it is easier. Time is saved but we eat less because packaged potatoes are more expensive. Time in this case has an additional cost. As a cook and volunteer, I try to motivate clients back to a collaborative cooking experience. I teach them not only how to

cook traditional dishes from my own cultures but also about simple cooking with fresh ingredients. Of course, with a pinch of positive and motivating attitude.

Waste is not a waste

Waste is something that comes back to life through my graduation project. It is the transitory item in the story from cooking to textile, to seed collection. It is the element that tries to transform a story into something readable, something that catches attention and allows communication with the maker. The cook uses the waste as an outcome from her experiences in kitchens, cooking and treating waste to feed her yarns. These yarns talk on behalf of the waste as they are woven into a fabric where time and unspoken stories are inscribed within the warp. The weaver turns into a journalist at the same time, weaving her yarn as if she is writing. The remains of waste, after the process of cooking for the yarns, are combined with textiles and presented as an edible material or sculpture made by the artist. The artist triggers the audience and their irrepressible appetite with a feast for the eye. Food becomes one with the textile, or perhaps is the textile. The colors from waste dyes might also find another life through a series of ceramics (where they are soaked in various waste dyes) to form cutlery where food is presented, or standing sculpture. One would come to shop for seeds, find them appealingly available for free, with an additional recipe and a story attached to the seed packages. The recycled packaging for seeds would include information about the time it takes to grow a certain vegetable, and approximately how long it takes for that seed to reproduce itself and enter a new kitchen after being picked. Maybe visualization of time for growth will make us look at food differently and discourage waste. The cook, the weaver, the journalist and the artist. They meet at the same dining table, and feed each other. They eat, talk, and discuss their positions in the world. Waste is their mediator; what comes out as waste from dinner cooked by the journalist weaver is not just waste, it is the material the artist uses to feed the cook, to dye her sculptures and create her installations.

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