

I'll be making meatballs, Pantelis will also be there.

With the family?

Don't use cumin then.

What should I use?

Cinnamon...

Mr. Vasilis, we never put cinnamon in meatballs...

Dorothea, listen to me... Sometimes we have to use the wrong spice to get a point across. Add something different. Cumin is a strong spice, it turns people inwards. Cinnamon makes people look each other in the eyes

If you want to say *yes*, then add cinnamon.

— *Mr. Vasilis*, *Touch of Spice*, 2003

RECIPES FOR CO-CREATION

A TOOLKIT FOR FOOD DESIGN WORKSHOPS FOR CHILDREN

INDEX

	INTRODUCTION	9
1	DESIGNING FOOD	10
	WHY TO DESIGN FOOD	12
2	RESPONSES TO FOOD	13
	2.1 SENSORY RESPONSES	14
	2.2 BEHAVIORAL RESPONSES	15
	COMFORT FOODS	15
	2.3 REFLECTIVE RESPONSES	17
	2.4 CHOOSING THE POINT OF VIEW	19
3	CO-CREATION	21
4	DESIGN FOR CHILDREN WITH CHILDREN	23
	TOOLKIT FOR FOOD DESIGN WORKSHOPS WITH CHILDREN	27
	BIBLIOGRAPHY	33

This essay is a study for a *Food for Kids* –project. *Food for Kids* is a *co-creation* project that I have outlined in collaboration with Ilari Laitinen. We have planned a series of workshops in which we participate children in a food design process. We want to study how and what children want to eat. We intent to find stimulating food forms and ways to eat and then develop the feasible eating concepts further. We have planned *what* to do. In this essay I will discuss *why* and *how* to do it.

This essay is primarily investigative and discursive and only secondarily productive. I will

^ASignificant in respect to definition of food design and in respect to the *Food for Kids* –project.

- 1 make a short overview of *food design*,
- 2 introduce some of the most significant^A *food design* projects and designers,
- 3 discuss why to design food,
- 4 identify points to consider in *food design*, and
- 5 locate myself and the *Food for Kids* –project in the field of *food design*. I will also
- 6 define *co-creation* as a design method,
- 7 introduce *co-creation* projects comparable to *Food for Kids*, and
- 8 explain why I have chosen *co-creation* for the workshop instead of user centered design method. I will
- 9 reflect on these topics and raise problems the designer encounters when designing to and with children and
- 10 present ways to approach these problems. As an outcome of my investigation I will
- 11 present a toolkit to involve children in the *food design* process and the *Food for Kids* –workshop.

“Food designer is somebody working with food, with no idea of cooking.” — *Inga Knölke*^{Guixé n.d.}

1 DESIGNING FOOD

From here on I will use the term *consumer* to signify a consumer of food products, an *eater*, and hope to avoid connotations to extravagant purchaser of goods. In order to avoid ambiguity and to emphasise that I am writing this essay to explain the *Food for Kids* –workshop I will replace a neutral *user* by *consumer* in all definitions.

I belong to the unimaginatively nourished generation of the late 80’s – the generation whose portions were halved by the recession. This sounds like an exaggeration and way out of perspective. After all I would not have noted anything if I had not been allowed to put *only* either ham or cheese on my sandwich. What I learnt with clarity, however, was that I was not to play with food. Playing with food was not only discouraged

but considered a blasphemy.

“Food is a privileged field where the moral imagination is structured through taboo, abominations, restrictions and rules of hygiene based on the classification and organization of natural phenomena.”^{Octavi Rofes in Guixé, 2010, 100}

Attitude towards food has changed since the 80’s for socioeconomical reasons. Food has changed from necessity to a consumer product^{Guixé, n.d.}

Food becoming a consumer product has stimulated designers and artists to adopt food as a material. In my childhood using food as a material would still have been considered “*banal*”^{Guixé, 2010, 101}. This attitudinal change has lead to emergence of food design as an independent discipline.

Food Design Association defines food designs as follows:

- 1 social change and cultural ceremonies, forms and techniques of food (formation of lifestyle, identity and integration of different communities);
- 2 food information related to the body, environment and technology ;
- 3 scientific research and innovation in systems and devices for production and processing;

1, NENDO's chocolate pencils as opposed to 2, food art (art where food is used as material) by Saxton Freymann.

1



2



- 4 design (form, function and cognitive and emotional relationships related to food & beverage);
- 5 the design of communication, marketing and services;
- 6 the architecture of the spaces and tools (their relationship and their uses);
- 7 the whole techniques and arts of gastronomy and enology;
- 8 the culinary knowledge (the imagery related to the material culture);
- 9 local promotion and cultural marketing. ^{FOODA, n.d.}

FOODA definition covers a number of disciplines. Food designers themselves define *food design* more precisely. Martí Guixé is a Barcelona-based designer pioneering in food design. Guixé touches the aforementioned topics with his designs, but also makes a clear distinction between design and other disciplines. Guixé agrees only with the points 1 and 4 of the FOODA definition of *food design*. Chefs, for example, epitomize craftsmanship and thoughtless repetition and recreation, whereas designers represent creation of something new^{Guixé}. For Guixé the concept must be repetitive. This distinguishes food design from food art. Repeating the concept thereafter is no longer design. Marije Vogelzang is an Amsterdam-based designer. She calls herself an eating designer instead of a food designer. She says food does not need to be designed, it is perfect already as it is. Vogelzang 2009 She designs the culture around food instead.

In this essay I will treat the term *food design* in a very narrow, almost guixean way. I will use the term *food design* to refer to a discipline devoted to designing new food and eating concepts. These concepts may touch any of the topics mentioned

in FOODA's definition. Work done for any of the aforementioned fields alone without the objective of partaking in the food culture discussion, however, cannot be considered *food design*. Making a clear distinction between *food design* and other areas of design this way will inevitably lead to criticism on intentionalism. I find it reasonable to limit the scope of this essay and settle with this definition of *food design*, however flawed it still may be.

WHY TO DESIGN FOOD?

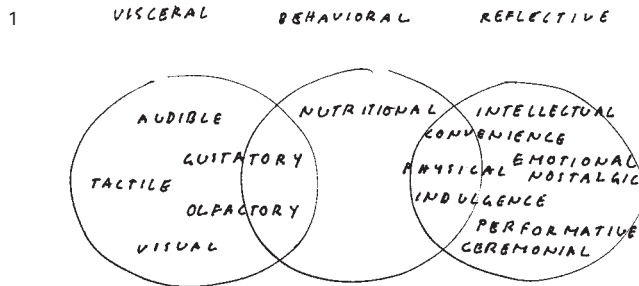
Maslow's suggests that if the pre-potent needs are not satisfied, the deficiency needs will not be met either. According to Maslow food is the most pre-potent need of all, a psychological drive. Food concerns everyone. Thus food design is a medium which reaches everyone. "There is no material that comes as close to human beings as food," says Marije Vogelzang. "You put my designs inside your body."^{Vogelzang n.d.} "Actually what I'm design is shit."^{Vogelzang 2010B}

Many designers find designing material unethical. Both Guixé and Vogelzang emphasize the ephemeral nature of food as a material.^{Guixé 2010, 100 and Vogelzang 2009}

Locher et al. state that food "can be manipulated to modify or change emotional states and feelings"²⁸⁹. Designing food has therefore a direct effect on people.

1 A diagram illustrating different responses to food.

2 RESPONSES TO FOOD



There is not just one simple reason why an individual selects a certain food product. One does not eat a strawberry only because it tastes sweet. “Even though the five flavors are perceived by the tongue, the impressions are collected and interpreted by the mind.” Fukuoka 136

According to Vogelzang eating is a phenomenon that happens more in one’s mind than one’s digestive system^{Vogelzang}. John Allman,

a Caltech neuroscientist, even suggests a physiological connection between food (taste) and emotions. Emotional logic and food related assessments take place in the same part of the brain, insular cortex.^{Montgomery, 2012. 158}

Next I will introduce the framework in which people respond to food and how they choose what to eat. Food gives visceral (relating to viscera), behavioral and reflective responses^B. These responses dictate the consumer decision making. The responses cannot be distinguished clearly. It is impossible to say exactly what causes which response. I present above a diagram of one possible division of responses.

Locher et al. state: “Both the social and physiological dimensions of food must be taken into account in any efforts to change eating behaviors.”²⁷⁴ I will review these responses in order to show the points we have to take into account when preparing the *Food for Kids* –workshop.

^BDesign writer Donald A Norman divides emotional design into three levels: visceral, behavioral and reflective. I believe that any response can be evaluated with these attributes. I adopt the division to distinguish the responses from food from each other.²²

^CAccording to aristotelian classification of senses, as opposed to modern view including temperature (thermoception), kinesthetic sense (proprioception), pain (nociception), balance (equilibrioception) and acceleration (kinesthesioception).

2.1 SENSORY RESPONSES

I divide the sensory responses into tactile, visual, auditory, gustatory and olfactory, related to sense of touch, sight, hearing, taste and smell, respectively^C. Eating is a multisensory action. “To be exact, the sensation commonly known as ‘taste’ is an interaction of all five senses [...]. When we say that something ‘tastes’ good, we also mean this to include that it looks good, smells good, feels good in the mouth and sounds good when we chew it.”^{Stummerer and Halbesreiter, 2010. 23}

Sensory variables are stimulating consistencies or combination of consistencies, stimulating taste or combination of tastes, stimulating appearance and stimulating sound that it makes while eating.

Stummerer and Halbesreiter list a number of food textures: hard, soft, liquid, fluffy, creamy, emulsion, qimi, crunchy, crispy and stable, jelly, elastic, plastic, sticky etc. and an infinite number of their combinations. They claim that the consistency of the food product is actually 60% of the taste.⁴⁶⁻⁷⁵

The sense of taste can identify five different tastes: sweet, sour, salty, bitter and umami. The rest of the nuances are distinguished by the sense of smell.

There is a limitless possibilities to create a food object which satisfies the sensory responses. Through the *Food for Kids* – workshop we try to map out how we can meet children’s wishes; which combination of textures, tastes or the infinite possibilities of appearance and sound the children find stimulating.

2.2 BEHAVIORAL RESPONSES

Behavioral responses relate to the function of food. If food is nutritional or filling it satisfies its primary behavioral expectations. After the pre-potent needs are satisfied, other than nutritional motives emerge^{Maslow}. People eat in order to feel good. These foods we consume in order to feel solace, relief or comfort are called *comfort foods*.

Comfort foods fall mostly under behavioral responses. That is why I will introduce the concept of comfort foods here as one entity. I find it unnecessary to discuss the nutritional quality of food as I have excluded it from my definition of food design. Next I will introduce comfort foods and explain how they relate to consumer decision making.

COMFORT FOODS

Oxford English Dictionary defines comfort food as “food that provides consolation or a feeling of well-being, typically having a high sugar or carbohydrate content and associated with childhood or home cooking”^{OED}. Merriam Webster Dictionary defines it as “food prepared in a traditional style having a usually nostalgic or sentimental appeal”^{MWD}. Wansink and Sangerman define it as “a specific food consumed under a specific situation to obtain psychological comfort”^{as quoted by Locher et al. 274}. Locher et al. explain the dual nature of food: “Foods are distinct from other objects that people may use to derive comfort because they are incorporated or taken into the body; thus they thus have physical, as well as psychological and emotional effects”²⁷⁵.

Locher et al. studied eating habits and food preferences of a class of 264 undergraduate students. They classify different comfort foods into four categories: physical comfort foods, indulgence foods, convenience foods and nostalgic foods.²⁷⁹

Next I will introduce the first three categories. Nostalgic food I will introduce later under the reflective responses.

Locher et al. define physical comfort foods as follows: “Physical comfort foods are those that offer comfort either through their physical attributes or through the physical changes they bring about in the consumer.” Eating warm food makes one’s body warm. Furthermore, eating soups, puddings, ice-cream etc. foods with homogenous, soft and smooth consistency require only little physical effort. “When one is feeling blue, sometimes even the least strenuous task can seem overwhelming. In these cases, foods requiring minimal physical effort are most comforting.” Also the very opposite may bring about the sensation of comfort. One test subject described how crunching tacos gave her comfort. She reflected her stress to the tacos which she could then crunch violently to pieces.²⁸⁷

Another type of physical comfort foods are the foods with a physiological effect on one’s body. Certain foods are claimed to release body’s own opiates which then cause a good feeling²⁹⁰. The distinction between sensations of comfort resulting from entirely physiological effects or psychological effects is unclear. As researchers cannot agree on this matter, I do not find this important to the result of the workshop. I only acknowledge that food may also have direct physiological effects on consumer’s mental state.

Convenience foods are consumed because they are conveniently accessible; they provide a possibility of “effortless

gratification”^{Locher et al. 286}: chocolate bars, crisps, frozen foods, home-delivery pizza, hamburgers etc. Convenience foods are considered satisfying because of their easiness.

According to Locher et al. indulgence foods are often considered almost forbidden and consuming these foods provides comfort because eating them places the emotional needs of the consumer in the center, before the healthiness. Indulgence foods however have this intellectual aspect and I find it unnecessary to discuss them further.

2.3 REFLECTIVE RESPONSES

I divide the reflective responses into intellectual, emotional, performative (sensation of accomplishment), and ceremonial (sensation of transcendence). I define the intellectual responses as the responses that are not directly caused by food but food-related reasoning. Reasons to follow a diet or choose an organic or ethically produced product over a similar but unorganic or unethically produced one are intellectual. Adults are reflective as consumers whereas children are instinctive (relying mostly on the sensory, emotional and performative responses). Vogelzang avoids talking about healthiness of the foods. It is “a very boring subject”^{Vogelzang}. Because the *Food for Kids* –workshop is aimed at children, I find it unnecessary to discuss the intellectual and ceremonial responses here more broadly.

As an emotional response I introduce the idea of nostalgic foods (see comfort foods). Nostalgic foods are the foods “recreating a sense of peace and happiness experienced ear-

1, 2. Japanese candy Nerunerunerune involves the consumer in its preparation process. It is extremely popular.

1



2



lier in [...] lives, frequently during early childhood”²⁸⁰. In case of feeling down one wants to recreate a comfortable atmosphere. Normally this atmosphere is fortified with tools such as comfort foods, which have strong associations to the childhood.

One reason to choose one food product over another food product is the sensation of accomplishment. “One of the [...] powerful ways to induce positive sense of self is through a personal sense of accomplishment.”^{Norman, 55–56}

The sensation of accomplishment is one of the deficiency needs emerging after the pre-potent need of food is satisfied^{Maslow}.

In the 1950’s, the Betty Crocker Company introduced a just-add-water cake mix to the markets. The product failed, even though the product was brilliant according to the taste tests. Market researchers found out that the mix was too simple. It did not give the sensation of involvement. Rather it made consumers feel inapt. The problem was solved by requiring the consumer to add an egg to the mix. The product became highly popular. Adding water and an egg instead of only water provided a sensation of accomplishment.

The same model is utilised in Japan for marketing a candy. Nerunerunerune (ねるねるねるね) is a candy mix à la Betty Crocker. It resembles a small laboratory toolkit whose ingredients, when mixed according to the instructions, cause a chemical reaction, bubble and sizzle, and change form and color. Nerunerunerune stands out from the passivating products. It has become overly popular among the Japanese children and posting videos or images of it has become a meme in the social media.

1, *Veggie Jewelry* by Marije Vogelzang. The children eat through the vegetables to make accessories.

2, *Color Food* by Marije Vogelzang. Each colour was given a positive function to the consumer. If the consumer wanted to get rich, he would eat green food, If he wanted to make friends he would eat yellow food etc.

2.4 CHOOSING THE POINT OF VIEW

1



2



Fortunately the food object does not need to meet all the aforementioned conditions at the same time in order to measure up to customers' expectations. Let us say that a sensory response to a food object is negative, but the reflective response is positive. If the positive reflective response is strong enough it may outweigh the negative sensory response.

Vogelzang had read that children need to try a new taste for seven times to become accustomed to it. In order to make the children try vegetables, she made them to create vegetable bling bling with their teeth. In the process they ate more vegetables than they would have otherwise eaten. ^{Vogelzang 2010B}

Here the positive reflective response from the accomplishment outweighs the negative sensory response from the taste of the vegetables.

When I was a child, I went to a day care. Sometimes we were allowed to play a game called "the poisoned raisin". One of the children had to wait in the next room while a handful of raisins were spread across the table. The others picked i.e. "poisoned" one of the raisins and the child in the next room was let to enter. Then he started to eat the raisins as long as he encountered the "poisoned" one and was considered dead and not allowed to eat anymore. Then the next child left the room and the raisins were spread again. During the game the raisins were considered to be the highest quality treats. This way we were persuaded to eat raisins instead of candy.

1, *Mr. Food Face Plate* by Fred & Friends.
The plate communicates to decorate the face and play with food.

2, *Cartes à Manger* by Julie Rothhahn.
The shape of the cracker encourages the consumer to play with them.

1



Another project by Vogelzang is *Color Food* for a Pediatrics Clinic in New York and the children treated from obesity. The children had negative connotations with food and refused to eat. Vogelzang presented food objects in different colours and related each colour with a positive function: green—wealth, red – self-confidence, yellow—friends etc. ^{Vogelzang 2010A, 44–45}

“These children they will pick their food according to another reason, so it’s not about good food bad food good feeling negative feeling healthy unhealthy fat slim whatever... it’s changing their perception (about), the feeling that the eating gives them.” ^{Vogelzang 2010B}

2



By tapping on the reflective responses, the food designer can *trick* children to eat something they would not otherwise eat. By *tricking* I do not suggest that food should be prepared unrecognizable, but that unappetizing foods can be presented in an appetizing manner. Food can be represented as something that creates a positive response in the children – food related activity instead of food object.

Don't play with your food is a mantra that has little value today. Why not to play with food, if playing with it makes it more appealing, interesting or appetizing?

3 CO-CREATION

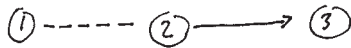
The terms *co-creation* and *co-design* are abbreviations of *collective creation* and *collective design* respectively, and are often used interchangeably. The terms are recent and not yet institutionalized. Sanders and Stappers suggest that *co-creation* should be used of any act of collective creativity whereas *co-design* is an instance of *co-creation* that manifests itself in a design development process.^{2008. 12} Before now *participatory design* has been used in design discourse instead of *co-creation* or *co-design*.

Robert Jungk identifies two categories of the participation: “participation at the moment of decision” and “participation at the moment of idea” as quoted by Sanders and Stappers, 7.

Participation at the moment of decision refers to services where the consumer can customize a product or a service to suit his intentions e.g. sneaker producers provide the consumer with a possibility to compile an ideal sneaker from a variety of colors and surface designs. *Participation at the moment of idea* refers to the whole design process, from the idea generation to idea development.

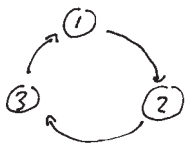
I make a clear distinction between *co-creation* and *participation at the moment of decision*. *Participation at the moment of decision* lacks collaboration or collectiveness (*co* to the *creation*) and interaction, which I find essential to *co-creation*. I find *participation at the moment of decision* rather a customization of a product or a service than *co-creation*. *Co-creation* entails a high degree of interaction between the co-creators and designers and participation throughout the design process (instead of the finishing touch). I will thus refer to *co-creation* much the same way as Sanders and Stappers.

Consumer-centered design method as opposed to co-design. The arrows show the direction of information:



In consumer-centered design

- 1) the consumer is a passive object of study
- 2) the researcher studies the consumer and provides the designer with the information
- 3) the designer meets the needs of the consumer according to the information provided by the researcher.



In co-creation

- 1) the consumer is the expert of his needs and takes actively part in the ideation and concept development,
- 2) the researcher supports the ideation, and
- 3) the designer creates the “scaffolds” for ideation and concept development and ultimately gives the form to the ideas.

The role of the designer is changing in the modern society. Sanders and Stappers quote Nigel Cross:

...professional designers in every field have failed in their assumed responsibility to predict and to design-out the adverse effects of their projects. These harmful side effects can no longer be tolerated and regarded as inevitable if we are to survive the future....There is certainly a need for new approaches to design if we are to arrest the escalating problems of the man-made world and citizen participation in decision making could possibly provide a necessary reorientation.^{2008, 4}

People want to be “creators” instead of “customers”^{Sanders 2006, 66}. Instead of subjective ready-made solutions the people want to have a say in the design process. There is a clear “shift in customer mindsets from ‘do it for me’ to ‘do it with me’”^{Emerson and Powell, 2011}. Furthermore, design fields are constantly moving from design of categories of products to design “for a purpose”^{Sanders and Stappers, 2008, 7}. These purposes can be mapped through *co-creation*.

Co-creation changes significantly the role of the user and the designer. The user is considered the expert of his own needs. The user partakes in the idea generation and concept development. The designer on the other hand, creates “scaffolds or infrastructures”^{Sanders 2003} in which the users nondesigners can express themselves.

Powell and Emerson describe the change in designer-client relation: “Customers become active collaborators with providers, sharing ownership of the service and its outcome, which helps to ensure that the experience meets their needs. In other words, companies supply the tools and environments and then customers imagine and create the experiences they want.”

1,2 Erika Mann Elementary School in Berlin turned into *The Silver Dragon World* in a co-creative project with children.

1



2



4 DESIGN FOR CHILDREN WITH CHILDREN

Children's imagination knows no limits. They are free from norms, aesthetic ideals and prevailing trends. This is why collaborations with children yield unexpected results. In order to design for children with children the designer has to change his mindset from an adult back to a child. The designer has to learn how the children think.

Vogelzang's designs for children show understanding and adaptation of the children's way of thinking. A can of beans by Voelzang says: "Beans beans the musical fruit, the more you eat the more you toot, beans are good for your heart. The more you eat the more you fart." Klanten and Ehmman, ed. 2009, 195

Vogelzang points out associations which are obvious, but hardly ever mentioned in adults' discussions. She understands that children are not small adults and that they have to be approached from an unusual perspective. Adults find farting openly inconsiderate whereas children find it entertaining. The designer has to understand what children find interesting. "Eventually this can lead to national farting contest or a farting orchestra." Ibid.

To put oneself into another person's shoes is easier said than done. To adopt children's mindset may be challenging if not impossible. This is where *co-creation* proves to be incomparable. What would be an easier way to understand what the children want than asking them directly?

The *Baupiloten* is a co-venture between Susanne Hofmann Architects and TU Berlin faculty of architecture. Susanne Hoffmann Architects addresses projects to the Baupiloten, coordinates them and lets the students manage them. In many of the projects the Baupiloten has deployed participa-

1 “A silver dragon approaches the school in search of a sleeping place. He wanders through the hallways of the first, the second and finally the third floors. Everywhere where the dragon has been, the hallways have changed. At the beginning you see a flicker and a glimmer, as if the twinkling scales of the dragon’s skin have rubbed off, but more and more the school turns into an enchanted dragon garden.” Baupiloten n.d.

tory design methods. The Baupiloten describe the advantages of *co-creation*: “This interactive process enables the expression of complex and subconscious needs, as well as ideas which are often difficult to communicate. Further, it encourages multi-cultural communication and facilitates the users’ identification with their constructed environment.” Die Baupiloten n.d.

The *Baupiloten* describe their relation to the children: “We inspire each other: They delve into a world we suggest and we entertain their ideas and fantastic imaginary world. Together we wonder where their collages might lead, we discuss their ideas of merry-go-rounds made of flowers or the fact that the school should fly.” Klanten and Ehmann, ed. 2009, 105

Erika Mann Elementary School in Berlin is an example of the use of participatory methods. The *Baupiloten* pooled together all the human and material resources available. The children and the personnel participated in workshops and provided the designers with unique insight to the school environment and children’s needs. The architects prepared 3D-models of the architecture and interior design which were then presented to the pupils and their teachers. The models were then revised according to the children’s and the teacher’s wishes. As a result *The Silver Dragon World* was created. The further one goes the more the school begins to resemble a dragon’s lair. The design offers comfortable hiding places, dim corridors and fantastically lit hallways. Klanten and Ehmann, ed. 2009, 105

Taka-Tuka-Land is a kindergarten in Berlin. In this project the children and the nursery school teachers made collages of their imaginary *Taka-Tuka-Land*: “[...] melodic bridges, little huts, a merry-go-round of blossoms and a throne



1 A kindergarten in Berlin–Spandau turned into Pippi Longstocking's *Taka–Tuka–Land*. It represents Pippi's old oak tree.

2 The bark of the old oak tree opens up and turns into a jungle gym.

3 Lemonade is produced in the interior of Pippi's old oak tree. This is why the interior glows in yellow colour. Die Baupiloten n.d.

1



2



3



of shells for Pippi's father.” Die Baupiloten n.d. The *Baupiloten* students then observed the children's daily routines and used these observations together with the children's and the teacher's wishes as a basis for the design.

Through co-creation the children became more engaged and devoted to the elementary school and the kindergarten as institutions. This resulted in a more stimulating learning environments. The *Baupiloten* describe the process and the results of *The Silver Dragon World*: “Their desires were taken seriously and their decisions respected. The school became their place of identity and support in a difficult district. It became a place they could relate to. it became their school.” Furthermore, surveys show that students from this particular school are more successful in comparative tests than children from this area used to be. Klanten and Ehmann, ed. 2009. 106–107

If the consumer participates in the design process, he is less likely to discard its results. *Co-creation* reinforces consumers' emotional relationship to the product or service and thus results in strong consumer–product or consumer–producer –relationship. Similarly to the *Baupiloten*–projects, we hope that when the children are let to participate in the food design process, they will feel more comfortable with the food that they eat.

The design process with children differs from one with adults. The adult mindset is difficult to shake off. “On the one hand parent's idea of style is too sophisticated for children. On the other hand a child's free-spirited ideas of a well designed home might clash with the ones of their procreators.” Klanten and Ehmann, ed. 2009. 112 The children's ideas are more easily disregarded than adults'.

Of course we use children's input. When designing with kids, the outcome of their participation can vary depending on the techniques, briefing and coaching. Therefore, we find it more interesting to let kids talk or write, instead of letting them make DIY models from toilet paper rolls with predictive outcome. In general, 95% of the kids have very conventional ideas but the other 5% are very inspiring.^{Klanten and Ehmann, ed. 2009. 64}

I rather believe that children are not conventional, but their incompetence of forming three dimensional models hinders their expressiveness. This is why interviews and sketches result with more fantastic ideas. The methods of participating the children must be such that they do not limit their expression. The workshop tools will vary from drawing and modelling to story telling and playing.

Designers Yves Fidalgo and Cédric Decroux, Fulguro: "Kids are quite unpredictable. They are passionable about something for a moment and a moment later they couldn't care less. It was a real challenge to keep them focussed for three hours." Klanten and Ehmann, ed. 2009. 112

The exercises of the workshop cannot be too long. We have to create an atmosphere where the children want to do the exercises instead of having to.

Co-creation with children can result in fantastic outcomes as the *Baupiloten*-project indicates. Through *co-creation* an open-minded designer can learn to view things from a children's perspective. Because of the aforementioned problems I have prepared a list of exercises. We can choose the exercises which we find most suitable for the individual participants, group dynamics and the overall atmosphere of each workshop.

RECIPES FOR CO-CREATION

A TOOLKIT FOR FOOD DESIGN
WORKSHOPS FOR CHILDREN

I divide the exercises of this toolkit according to Sanders into four different phases.

- 1 Immersion into the experience
- 2 Activation of feelings and memories about the experience
- 3 Dreaming about the future
- 4 Bisociation and expression of new ideas relating to the future experience (post-workshop phase).²⁰⁰³

I have tried to create more or less as many exercises to each phase.

IDEO divides co-creative exercises into four categories:

Learn: Analyze information to identify patterns and insight

Look: Observe the consumer to find out what they do instead of what they say they do.

Ask: Evoke direct responses.

Try: Acquire and evaluate information by doing^{IDEO 2002}

I have tried to create few exercises into each of the categories. I do not believe that the results of children's doing are more interesting than talking or writing. Instead I believe that the tools have to be well prepared in order to get good results from their doing. This is why I put emphasis of these exercises on *trying*.

IMMERSION INTO THE EXPERIENCE

- 1.1 Pre-task: Listen to a story of a garden where trees grow fantastic fruits: *rasnanas*, *mepples*, and *granges*.
- 1.2 Pre-task: Watch an excerpt from Aladdin. Introduce the idea of Genie capable of fulfilling one's wildest dreams.

Ingredients:
Children's story,
tv-screen,
excerpt from Aladdin

In order to reach a creative mood Sanders suggests an easy stimulating pre-task Sanders as cited by Vaajakallio, Lee and Mattelmäki, 248. The atmosphere is secure and the children will calm down and drop their fronts. This prepares the children for the successive excercises.

- 2.1 Collage: After the story create your own garden of fantastic fruit trees. What grows in your trees? Create a collage from the material provided (images of food textures and colours). Try
- 2.2 Collage: You meet Genie and get three wishes. What would you wish from Genie? Create a collage from the material provided (images of food textures and colours). Try

Ingredients:
Board,
images of food textures,
colour papers,
scissors,
glue,
tape,
markers

Excercise 2 lets the children to express themselves and the ideas evoked by the story. The children are introduced to think outside the box and imagine unexisting food objects. We will learn what kind of "fruits" the children fantasize.

- 3 Sketch: Draw an arbitrary unbreaking line. Let the pencil wander and zigzag on the paper. Identify the hidden forms and shapes. Use them to create images. Yorifuji 44-47
Try

Ingredients:
Paper,
pens,
pencils,
markers,
crayons

Excercise 3 the children will create from nothing. They make themselves a framework in which to work. The children will have to look at things from a different perspective and find surprising visual resemblances. We will learn what kind of shapes and ideas stimulate the children and what they find amusing.

ACTIVATION OF FEELINGS AND MEMORIES ABOUT THE EXPERIENCE

- 4 Collage^{IDEO 2002}: Tell a story about food by drawing and using colored papers, and papers cut into a shapes of recognizable food objects. Try

Ingredients:

Board,
pre-shaped colour papers,
colour papers,
glue,
tape

A narrative reveals consumer's motivation and reasoning.^{IDEO 2002} We will learn what possibilities they see in the familiar shapes of the vegetables.

- 5.1 Interview: What does your mother cook when you have a flu, or when you are feeling down? Ask

An interview lets the children express themselves vocally without limiting factors. We will learn what kind of food makes the children feel secure.

- 5.2 Role Playing: Two of the children play the mother and the father, and one child plays having a flu. The mother and the father prepare comfort food for the child. The children will narrate what they do. Look

Ingredients:

Kitchen utensils

Through role playing we try to map out what kind of food makes the children feel emotionally secure.

- 6.1 Key Words: Discuss about food with children. Let them tell you what their favorite foods are and describe them. Why are they so good? Identify key attributes that make the foods good. Learn

In Exercise 6.1 the children can describe attributes which they cannot express otherwise. We will learn which attributes are related to children's favourite foods.

- 6.2 Card Sort^{IDEO 2002}: Functions and attributes of different food objects are written down on cards. Organise and evaluate the cards. Learn

Ingredients:

Pre-written cards,
pencils,
colour tags

In Exercise 6.2 the children will have to analyse their relationship to food. We will learn what they find important in the food objects.

- 7 Picture Sort: Samples (or pictures of samples) of different textures are presented. Identify and evaluate the samples. Learn

Ingredients:

Samples of textures,
pictures of textures,
pencils,
colour tags

In Exercise 7 the children will have to analyse their relationship to food. We will learn which textures they find stimulating.

DREAMING ABOUT THE FUTURE

- 8 Role Playing^{IDEO 2002 and SDT 2009}: Sit down in a breakfast table. Two of the children play the mother and the father, and two other children play the children. The mother and the father prepare breakfast for the children. Try

Ingredients:

Kitchen utensils

IDEO refers to this tool also as “bodystorming”^{IDEO2002}. This tool prompts intuitive responses from the children. We will learn how the children behave in a breakfast table.

- 9 Model (Quick-and-dirty prototyping^{IDEO 2002}): According to the collage or another idea, make a model of the “fruit” using moulding wax as the material. Try

Ingredients:

Moulding wax

In Exercise 9 the children can express what they cannot express on paper. We will learn what kind of shapes the children find interesting.

- 10.1 Group mock-ups^{SDT 2009}: The children are provided with lunch ingredients but no cutlery and dishes. Create cutlery and dishes from the existing materials or consume the ingredients as they are. Look

Ingredients:

Vegetables (cabbage, tomato, carrots, cucumber etc.),
bread,
cheese,
meats
other lunch ingredients

In Exercise 10.1 the children will create new innovative ways to eat. We will get a new perspective to food and eating.

- 10.2 Group mock-ups^{SDT 2009}: The children are provided with lunch ingredients. Your parents are not here to correct you. How would you eat? Look

Ingredients:

Vegetables (cabbage, tomato, carrots, cucumber etc.),
bread,
cheese,
meats
other lunch ingredients

In this exercise we observe children’s behaviour in its natural context. We expect children to play with food. This approach is called “Fly on the Wall”^{IDEO 2002}.

BIBLIOGRAPHY

PRINTED MATERIAL

- Guixé Martí, 2010. Food Designing. Corraini Edizioni, Verona.
- Fukuoka Masanobu, 2001. One Straw Revolution, 2nd edn. Other India Press, Goa.
- Klanten Robert and Ehmann Sven. ed. 2009. Play All Day – Design for Children. Gestalten, Berlin.
- Norman Donald A, 2004. Emotional Design – Why we love (or hate) everyday things. Basic Books, New York.
- Stummerer Sonja and Hablesreiter Martin, 2010. Food XL. SpringerWien-NewYork, Vienna.
- Vogelzang, Marije, 2010. Eat Love. BIS Publishers, Amsterdam.
- Yorufuji Bunpei, 2009. Master of Imagination and Drawing. Bijutsu Shuppan-Sha. Japan.

IDEO, 2002. IDEO Method Cards.

ELECTRONIC MATERIAL

- Emerson Heather and Powell Ashlea, 2011. "Collaborative Service: How Doing Less Can Satisfy Customers More" in Rotman Magazine, Fall 2011. viewed 15 March 2012 at <<http://www.ideo.com/images/uploads/news/pdfs/CollaborativeService.pdf>>
- Locher Julie L., Yoels William C., Maurer Donna & van Ells Jillian, 2005. "Comfort Foods: An Exploratory Journey Into The Social and Emotional Significance of Food" in *Food and Foodways*, 13:4, 2005, 273-297. downloaded 5 January 2012 at <<http://dx.doi.org/10.1080/07409710500334509>>
- Maslow, A. H, 1943. A Theory of Human Motivation. Originally Published in Psychological Review, 50, 370-396. viewed 21 March 2012 at <<http://psychclassics.yorku.ca/Maslow/motivation.htm>>
- Montgomery Geoffrey, "The Neurobiological Sweet Spot" in *Lucky Peach – A Quarterly Journal of Food and Writing*, 2 – The Sweet Spot, pp. 154-158.
- Sanders, Elizabeth, 2006. "Scaffolds for Building Everyday Creativity" in Frascara Jorge (ed.), *Design for Effective Communications: Creating Contexts for Clarity and Meaning*, Allworth Press, New York. viewed 12 March 2012 at <http://www.maketools.com/articles-papers/ScaffoldsforBuildingEverydayCreativity_Sanders_06.pdf>
- Sanders Elizabeth, 2003. "Collective Creativity" in *LOOP: AIGA Journal of Interaction Design Education*, June 2003, 7. viewed 18 March 2012 at <<http://loop1.aiga.org/content.cfm?Alias=sandersucd>>
- Sanders Elizabeth and Stappers Pieter Jan, 2008. "Co-creation and the new landscapes of design". Pre-print of an article submitted for consideration in *CoDesign*. viewed 16 March 2012 at <http://www.maketools.com/articles-papers/CoCreation_Sanders_Stappers_08_preprint.pdf>
- Vaajakallio Kirsikka, Lee Jung-Joo and Mattelmäki Tuuli; 2009 "It has to be a group work!" – Co-design with children in *IDC 2009*, pp 246-249. viewed 18 March 2012 at <http://www.fotocomp.it/officina/IDC2009/media/shortpapers.pdf/P246-Vaajakallio.pdf>
- Die Baupiloten n.d. viewed 21 March 2012 at <<http://www.baupiloten.com>>
- FOODA, n.d. FOODA – Food Design Association. viewed 21 March 2012 at <<http://www.fooda.org>>

Guixé Martí n.d. viewed 19 March 2012 <<http://www.food-designing.com>>
 Merriam Webster Dictionary, 2012. viewed at 21 March 2012 at
 <<http://www.merriam-webster.com>>
 Oxford English Dictionary, 2012. viewed 21 March 2012 at
 <<http://oxforddictionaries.com>>
 Service Design Tools, 2009. viewed 18 March 2012 at
 <<http://www.servicedesigntools.org/>>
 Vogelzang Marije, n.d. viewed 18 March 2012 at
<http://www.marijevogelzang.nl/>

Vogelzang Marije, 2010. "Food Love" in TEDxMunich. podcast. viewed 20 March 2012 at <<http://tedxtalks.ted.com/video/TEDxMunich-Marije-Vogelzang-Foo>>
 Vogelzang Marije, 2009. "Dine by Design" in PopTech 2009. podcast. viewed 20 March 2012 at <http://poptech.org/popcasts/marije_vogelzang_dine_by_designimages>

IMAGES

11:1 NENDO, Chocolate pencils, downloaded 3 January 2012 from <<http://www.nendo.jp>>
 11:2 Freymann Saxton, Food art
 18:1 unknown, Nerunerunerune, downloaded 19 March 2012 from <<http://zpnet.blog9.fc2.com/blog-entry-26.html>>
 18:2 unknown, Nerunerunerune, downloaded 19 March 2012 from <<http://zpnet.blog9.fc2.com/blog-entry-26.html>>
 19:1 Vogelzang Marije, Veggie Jewelry, downloaded 18 March 2012 from
 <<http://www.marijevogelzang.com>>
 19:2 Vogelzang Marije, Color Food, downloaded 21 March 2012 from <<http://www.marijevogelzang.com>>
 20:1 Fred & Friends, Mr. Food Face Plate, downloaded 14 March 2012
 from <[http:// http://www.iwantoneofthose.com/gift-gadgets/mr-food-face/30002686.html](http://http://www.iwantoneofthose.com/gift-gadgets/mr-food-face/30002686.html)>
 20:2 Rothhahn julie, Carte à Manger, downloaded 20 March from <<http://www.juliehhh.com>>
 23:1 Die Baupiloten, The Silver Dragon World, downloaded 20 March 2012
 from <<http://www.baupiloten.com>>
 23:2 Die Baupiloten, The Silver Dragon World, downloaded 20 March 2012
 from <<http://www.baupiloten.com>>
 24:1 Die Baupiloten, The Silver Dragon World, downloaded 20 March 2012
 from <<http://www.baupiloten.com>>
 25:1 Die Baupiloten, Taka-Tuka-Land, downloaded 20 March 2012 from
 <<http://www.baupiloten.com>>
 25:2 Die Baupiloten, Taka-Tuka-Land, downloaded 20 March 2012 from
 <<http://www.baupiloten.com>>
 25:3 Die Baupiloten, Taka-Tuka-Land, downloaded 20 March 2012 from
 <<http://www.baupiloten.com>>

Jaakko Kalsi, 2012
Bachelor's Thesis
Graphic Design
Department of Media
School of Art, Design and Architecture
Aalto University