Katja
Gruijters

FOOD DESIGN

by
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TERRA

As a scientist who has dedicated her entire life to agriculture and food, especially in poor countries, I have been fascinated by how creative people from outside my profession look at food. I have had interactions with artists and studied works of art spanning many millennia, having a great time to use them in my book Hamburgers in Paradise to underscore how visions of food have evolved over time in response to plenty. However, my most fascinating encounters have been with food designers. Like scientists and engineers they explore and experiment led only by associations and values.

HER STUDIO LOOKED LIKE A LAB, WITH TEST TUBES AND VIALS AND ENDLESS DRAWERS WITH MATERIALS

I remember vividly my first visit to the studio that Katja Gruijters used to have right under the rail tracks in Amsterdam. Her studio looked like a lab, with test tubes and vials and endless drawers with materials, neatly arranged according to a systems that was uniquely hers. One of the projects we embarked on was inspired by her and my concern about food losses and the need to think in circles in order to re-utilise all the products in the food chain.

For a one-time event at the University of Amsterdam we created an evening on milk, yoghurt and other derivatives, for which Katja designed a beautiful board with little tubes from which whey was leaking and in which the milk coagulated – free for all to taste.

The interest in our food seems greater than ever. Everybody holds strong opinions about food. But we are faced with an intriguing paradox. The diversity and abundance of high quality, well produced, affordable food is greater than ever, even if two billion people do not have this access. There is an exquisite choice of products on the shelves of supermarkets, at farmers' markets and in restaurants. And never before in history there has been such a vast lack of trust in the quality, safety or health of our daily food. Undoubtedly, the distance between the consumer and the producer explains some of this. Globalization and a general unease about the world feed romantic ideas of a pastoral past, while we conveniently forget the harsh life in the rural areas, the lack of affordable food in the cities and the hunger-related diseases and poverty everywhere.

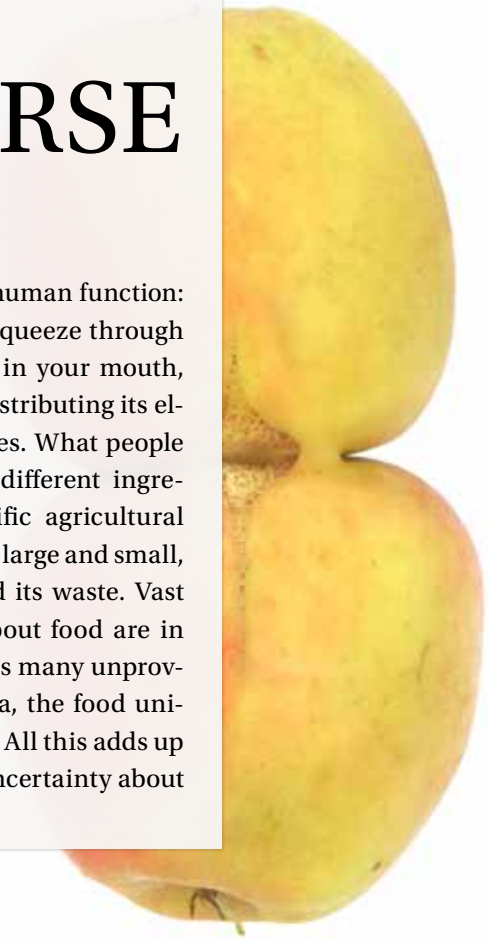
This is a striking paradox, which is not limited to the OECD-countries. It plays out in many ways. We don't like the shining silvery steel kettles and hygienic containers, cans and packaging. We feel that the smallholder with a limited number of cows, hog or poultry is doing a better and more honest job than a modern high-tech farm entrepreneur. We feel that the cheese made in the back of the little barns is superior in taste and safety to the cheese we find on the shelves in our local retail stores. And we distrust the labels and its accurate detailed information on the store bought food products. Local rather than global is the mantra.

Recently, the millennials are adding their ideas. Local, perhaps, but not necessarily low tech. New foods, from unsuspected sources, from algae or pure proteins. This is where the designers come in to tease us with the paradoxes that divides us. I am grateful to Katja and her colleagues for their help in exploring what is new, and to be solution-driven, optimistic rather than pessimistic, creative rather than conservative. Their views on the technological and biological dimensions of food and people open new doors for agronomists, ecologists, food scientists and psychologists.

Louise Fresco

INTRO

THE FOOD UNIVERSE



Eating is the most intimate human function: all this biomatter that you squeeze through your entire body, feeling it in your mouth, tasting it, digesting it and distributing its elements to their bodily chores. What people eat consists of numerous, different ingredients, each with its specific agricultural growing process, its markets large and small, its distribution systems and its waste. Vast numbers of known facts about food are in disagreement with at least as many unproven assumptions. As an extra, the food universe changes continuously. All this adds up to a smouldering sense of uncertainty about

what we should eat. The new field of food design is emerging as a way to shed light on the development of food values in terms of nutrition, enjoyment and seductiveness to all the senses.

Newspapers, TV and online publications spew out a constant flow of information about food. Some of it is factual, some of it based on cultural beliefs, some of it concerning health issues and some of it slippery

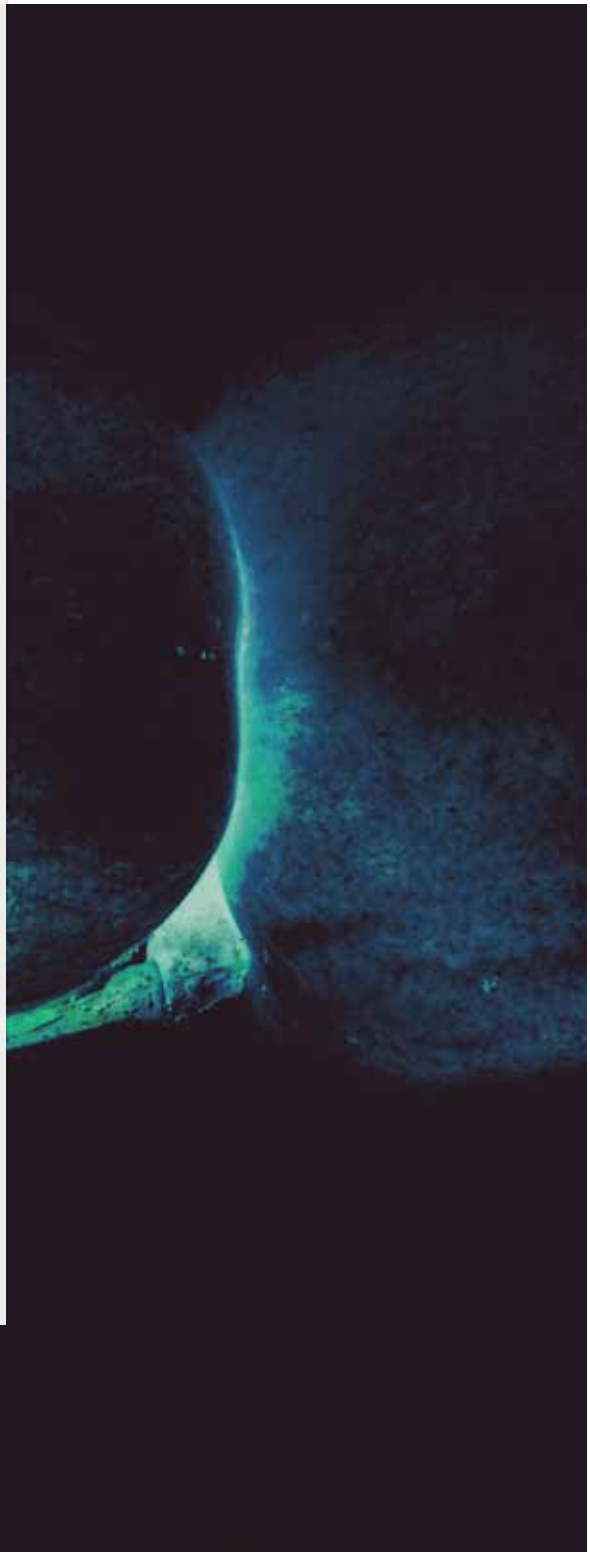
THERE IS NO CLEAR IDEA OF THE INTESTINES OF THE FOOD INDUSTRY

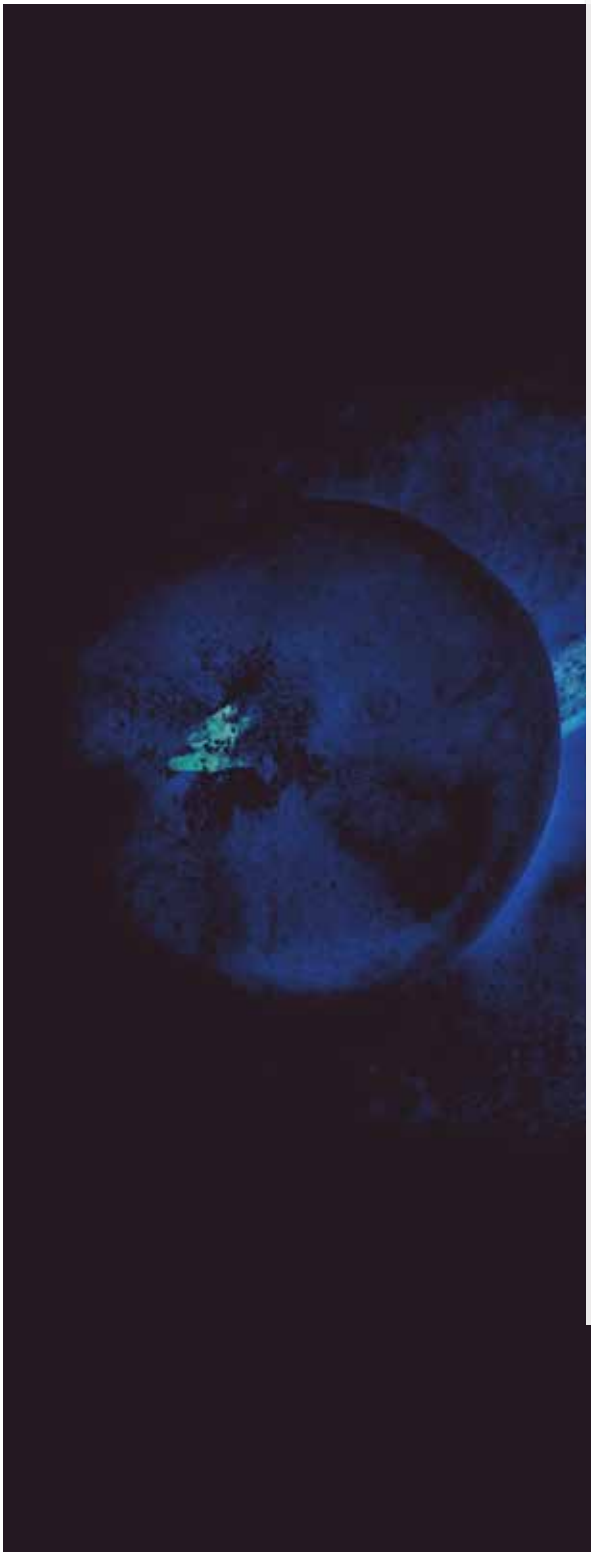
gibberish. Naturally, sustainability of food provision is an important issue. Information on what we should or rather shouldn't eat is usually just an illustrated headline, forgotten the next day. Modest bits of news , on the other hand, may very well be an indication of lasting change. This is all rather confusing. People are concerned about unclear scientific influences, the sheer scale of production, and suspicious about the effects of food substances on health and mental wellbeing.

It is not clear to everybody what is going on behind the scenes in food production. Farmers are not sufficiently aware of the way in which the food industry creates value with the ingredients they have provided. Consumers have no clear perception of the intestines of the food industry, marketing principles or government rulings. Yet their feeling of slight unease caused by the lack of transparency is overruled by the mother of all needs: convenience. Trade is mainly concerned with the traditional business model of selling more and faster (than competitors), and tends to ignore the side effects such as the abuse of animals and excessive wastage. According to UNEP (United Nations Environment Programme) wastage roughly amounts to no less than one third of all food produced for human consumption.
Nutritional flows do show an increasing positive effect. An extensive recently published worldwide study by the NCD (Non-Communicable Diseases) Risk Factor Collaboration, over the past 40 years, shows a considerable increase in average human life expectancy (from 59 to 71 years) and the number of underweight people is decreasing. However, obesity is now rapidly becoming a more serious problem, particularly in China. The title of a summary of this study in The Lancet, heralds the new kind of imperfection we are heading for: A fatter, healthier, but more unequal world.

The differences between the Far East and the West are not as marked as they used to be. There is an increasing exchange of eating cultures between all parts of the world.

This is a symptom of the globalisation of everything, including food distribution, eating habits, consumption and waste production. Supermarket chains all over the world now offer products that were simply unheard of as little as one year ago. Worldwide distribution of food culture evolves along similar lines as migration. As a phenomenon it has been going on for ages, but it really took off after Columbus opened up the connection between the Americas and other continents. For logistics, the consequences are formidable. Long distance transportation, storage and packaging take up a lot of effort and energy, and also impose complicated requirements on food, to keep it sufficiently fresh during its journey. Packaging, suitable for all stages of transportation and storage, including the fridge at home, is destined to be turned into waste, because – up until recently – other options have hardly been considered. Feeding the world's population will only work if the majority of all the basic nutritional needs are met by large- scale production under controlled conditions. Crops are being improved using genetic modification to make them withstand pests and diseases. Scientists have made considerable progress in understanding the definition of organism survival potential. However, opposition to large-scale production exists because some believe that it suppresses biodiversity. Proponents argue that large-scale agriculture actually supports biodiversity because it is continuously being improved with regard to sustainability, on its very large scale, where-





as small-scale biofarming is more fragmented and therefore lags behind.
Part of this conflict is caused by the difference between a romantic idea of life on a small farm and the industrial nutrient factory as a large food producing machine that may gradually evolve into sterile closed subterranean purple lit installations in which various crops grow under well-defined conditions, at all levels . There is no sun or wind. Bugs can't enter such a system and it only requires a fraction of the water needed by fields or in greenhouses. The only disadvantage of these systems may well be that they require energy.

Large-scale marketing presents dilemmas of a different kind. Huge numbers of people must be led to believe that they are making the right choices for themselves when purchasing food. Marketers are quite skilled in selling food and ingredients. There are drawbacks. Shopping for food is not necessarily a conscious activity, causing people to buy and consume food that may be unhealthy. People eat according to what they feel they need, which is not necessarily the same as what they know they need. You have to be mentally strong as a consumer to choose your position as you are continuously bombarded by diet fads, scientific evidence, cooking fashions and, obviously, advertising.

Everything that concerns food has developed a tradition and habits that are difficult

to change, because most people are reasonably happy with them.

This reduces innovation to combining known concepts. German Philosopher Peter Sloterdijk in his book 'You must change your life' beautifully named this 'resignation towards mediocrity'. Dr Oetker's Pizza Burger is a perfect example. However, there certainly is a place for small-scale production, with home gardening as an extension, for those who enjoy caring for plants. For many people growing their own food is the only option for survival because they happen to be less equal than others, to paraphrase Orwell's Animal Farm.

This is just a glimpse of the many ways in which people fulfil their nutritional needs. However, we have to invent methods towards the consumption of more varied food. We humans also need to adapt to increasing limitations on the availability of ingredients, in particular those that supply us with protein. The metabolic needs and gas production of the animals, now define the burden we put on the environment through food production. Ways have to be explored for us to change our lives consuming different compositions of ingredients that feed us well and make us feel happy and satisfied. This is where food design comes in.

Food design covers a very wide area. Therefore, even food designers tend to define their profession in terms of what it is not. They say things like: 'it is not snack styling' or 'it certainly isn't packaging design'. These activities can be part of a project, but they require specialist skills. A food designer therefore closely works with chefs, graphic designers, scientists, food processing specialists, flower arrangers, fishermen, caterers and many others, depending on the field of exploration. Here food design is defined as the innovative exploration and definition of all the elements relevant to food consumption. Innovation can of course have different angles. In this book the emphasis is on health, sustainability, quality and honesty. Exploration is the key to changing perspectives. It starts with the open-minded observation of what is going on and subsequently wondering why. In the world of food there is no limit to the sheer number of ingrained habits that deserve to be challenged, such as: why do only sick people get fruit as a present? Or why do guys in commercials always eat a candy bar as if they're devouring a boar's leg. Or how can it be that a cocoa farmer in Ghana has never seen, let alone tasted a chocolate? The main question is: what are we talking about? To create propositions, a food designer generates ideas and alternatives to answer these kinds of questions. The designer cooperates with specialists from different fields to describe or produce them. Depending on the context they can be presented as part of a special tasting or a written proposal or prototypes to be developed into products.

KATJA GRUIJTERS

Katja Gruijters has developed a deep understanding of the food universe. She is a food design pioneer. She was already interested in design in relation to what people eat and drink, and in thinking about the way in which food would have to develop in the future before her graduation from the Design Academy in Eindhoven in 1998.

As a designer she is an early recogniser of potential by identifying the changes that are happening. These changes are all related to population growth and the ability to get and maintain food production to a sufficient level to conveniently and pleasantly feed generations to come, keeping the surface of the earth intact as a habitat for life.

Katja Gruijters' graduation project concerned the development of several meat replacing snacks in an attempt to define an authentic identity for what is referred to as 'vegetarian meat'. Now she is no longer in favour of meat surrogates. The reason why is revealed when the principle is reversed. Suppose it made sense to promote meat consumption, would there be carnivorous greengrocers selling veal processed to look like cauliflower? To reduce meat consumption it would be more honest and real to try and seduce people into eating alternatives, such as tofu or seaweed without explicitly mimicking 'meat'.

Gruijters is particularly interested in the materials available for eating and ways in which they can be presented to seduce people to join an adventure and to experience tastes and smells, and textures that they may learn to love. The propositions she offers revolve around themes that are often ignored in the current eating culture. Aware-

ness of origin, for instance, is important, as is the selection system that turns perfectly edible vegetables into waste. Katja Gruijters has turned this into a major subject in her work entitled Beautiful by Nature. Cultural difference is interestingly ambiguous as a theme. On the one hand, there is a common transfer of habits, rituals and ingredients, which follows globalisation. On the other hand, there is a tendency to unjustifiably ignore differences, for instance when the Americans dropped food packages in Afghanistan, which contained obscure and (to Afghans) untrustworthy foodstuff such as jam and peanut butter.

AS A DESIGNER SHE IS AN EARLY RECOGNISER BY IDENTIFYING THE CHANGES THAT ARE HAPPENING

Probably the most important descriptors for Katja Gruijters' food concepts are freshness, which does not exclude preservation, and honesty, which does not imply that all her food magic must reveal itself instantaneously. She always has tricks up her sleeve to make you wonder.

OVER-ESTIMATED

One of the facts that a food designer has to come to terms with is that 'design' has a public reputation of presenting slightly strange objects of entertainment. Design is just different. For some designers this is simply a fact of life. It is what they do. Others feel that their profession is not taken seriously.

In 2003, Katja experienced this in a funny way. She had seen bread with holes in it hanging from bicycles in the Middle East. This gave her the idea of making bread with a handle, like a handbag, filled with lettuce. She decided to make such bread, photographed it in a functional setting and put it on her website. To her astonishment it went viral (years before the expression even existed). The idea was apparently going down quite well. She was even invited to Kuwait for a possible assignment.

Can such a picture be qualified as interesting food design? Not really. There was no thorough exploration, just a mental leap from one image to another. The edible bag was a playful sketch for an idea that looked different, but had no practical consequences.
A few years later Katja had a different kind of experience that showed the vulnerability of her entire profession. Food design partly consists of observing market changes or trends as media people prefer to call them. Out of the blue, a trend watcher had 'discovered' that food design was a new trend. It resulted in Katja Gruijters having a mild identity crisis. Observers don't expect to be the object of observation. Of course if food design is considered a trend instead of a professional field, it can only concern easy ideas, like the bread bag.