

**Show Transcript  
Deconstructing Dinner  
Kootenay Co-op Radio  
Nelson, B.C. Canada**

**October 14, 2010**

**Title: TED Talks Food w/ Jamie Oliver, Carolyn Steel & Christien Meindertsma**

**Producer/Host – Jon Steinman  
Transcript – Christine Nguyen**

*Jon Steinman:* Welcome to Deconstructing Dinner – produced in Nelson, British Columbia at Kootenay Co-op Radio CJLY. I'm Jon Steinman and today marks our 191<sup>st</sup> episode of the show.

It's become an incredibly popular event, website and series of inspiring speakers known as TED or TEDTalks, a small non-profit devoted to what they call, "Ideas Worth Spreading." Starting out in 1984 as a conference bringing together people from three worlds - Technology, Entertainment, Design - TED has since broadened its scope to include two annual conferences in California, a global conference in the UK and many on-line resources where more than 700 TEDTalks are now available.

TED believes in the power of ideas to change attitudes, lives and, ultimately, the world and a number of the talks delivered at their annual conferences involve food.

On today's episode, we hear three of those talks delivered by well-known television personality Jamie Oliver, who speaks passionately about teaching children about food. We'll hear architect and author Carolyn Steel speaking about the history of how cities feed themselves and we'll hear author Christien Meindertsma speak about the astonishing afterlife of the ordinary pig, parts of which make their way into at least 185 non-pork products.

**increase music and fade out**

Jamie Oliver has been drawn to the kitchen since he was a child working in his father's pub-restaurant. As the host of the BBC2 television show *Naked Chef* launched in the late 90s, Jamie Oliver has built a worldwide network of TV shows, books, cookware and magazines all based on a formula of simple food. Today, Jamie's focus has been on bringing attention to the changes he believes are needed to the diets of Brits and Americans and has launched campaigns such as Jamie's School Dinner, Ministry of Food and Food Revolution USA.

In this talk recorded in February 2010 at the annual TED Conference in Long Beach California, Jamie shares powerful stories from his anti-obesity project in Huntington, West Virginia, and makes the case for an all-out assault on our ignorance of food.

*Jamie Oliver:* (applause) Sadly, in the next 18 minutes when I do our chat, four Americans that are alive will be dead from the food that they eat. My name is Jamie Oliver, I'm 34 years old, I'm from Essex, in England, and for the last seven years I've worked fairly tirelessly to save lives in my own way. I'm not a doctor, I'm a chef. I don't have expensive equipment or medicine, I use information, education. I

profoundly believe that the power of food has a primal place in our homes that binds us to the best bits of life. We have an awful, awful reality right now. America, you're at the top of your game. This is one of the most unhealthy countries in the world. Can I please just see a raise of hands for how many of you have children in this room today? Please put your hands up. Aunties, uncles – you can continue to put your hands up – as well. Most of you, okay.

We, the adults of the last four generations, have blessed our children with the destiny of a shorter lifespan than their own parents. Your child will live a life ten years younger than you because of the landscape of food that we've built around them. Two thirds of this room today in America are statistically overweight or obese. You lot, you're alright, but we'll get you eventually, don't worry (laughter). The statistics of bad health are clear – very clear. We spend our lives being paranoid about death, murder, homicide, you name it, it's on the front page of every paper, CNN. Look at homicide at the bottom, for God's sake (laughter followed by applause).

Every single one of those ones in the red is a diet-related disease. Any doctor, any specialist will tell you that fact, diet-related disease is the biggest killer in the United States right now here today. This is a global problem. It's a catastrophe it's sweeping the world. England is right behind you as usual (laughter). I know that we're close, but not that close! We need a revolution. Mexico, Australia, Germany, India, China all have massive problems of obesity and bad health.

Think about smoking. It costs way less than obesity now. Obesity costs you Americans 10% of your healthcare bills. 150 billion dollars a year. In ten years it's set to double; 300 billion dollars a year. And let's be honest guys, you ain't got that cash (laughter).

I came here to start a food revolution that I so profoundly believe in. We need it. The time is now. We're in a tipping point moment. I've been doing this for seven years, I've been trying in America for seven years. Now, is the time when it's ripe, ripe for the picking. I went to the eye of the storm, I went to West Virginia, the most unhealthy state in America – or it was last year, we've got a new one this year, but we'll work on that next season (laughter). Huntington, West Virginia, beautiful town. I wanted to put heart and soul and people, your public, around statistics that we've become so used to. I want to introduce you to some of the people that I care about, your public, your children. I want to show a picture of my friend Brittany. She's sixteen years old, she's got six years to live because of the food that she's eaten. She's the third generation of Americans that hasn't grown up in a food environment where they've been told to cook at home or in school or her mum, or her mum's mum. She has six years to live. She's eating her liver to death.

Stacey, the Edwards family, this is a normal family, guys. Stacey does her best, but she's third generation as well, she was never taught to cook at home or at school. The family's obese. Justin here, twelve years old, he's 350 pounds. He gets bullied for God's sake. The daughter there, Katie, she's four years old, she's obese before she even gets to primary school.

Marissa, she's alright, she's one of your lot. But you know what? Her father, who is obese, died in her arms and then the second most important man in her life, her uncle, died of obesity. And now her step dad is obese.

You see, the thing is, obesity and diet-related disease doesn't just hurt the people that have it, it's all of their friends, family, brothers, sisters.

Pastor Steve, an inspirational man. One of my early allies in Huntington, West Virginia. He's at the sharp-knife edge of this problem. He has to bury the people, okay. And he's fed up with it. He's fed up with burying his friends, his family, his community. Come winter, three times as many people die. He's sick of it. This is preventable disease. A waste of life. Oh, by the way, this is what they get buried in. We're not geared up to do this. Can't even get him out the door, and I'm being serious. Can't even get him there. Forklift.

Okay, I see it as a triangle, okay. This is our landscape of food. I need you to understand it; you've probably heard this all this before, but let's just go back over it. Over the last thirty years, what's happened that's ripped the heart of out of this country. Let's be frank and honest. Well, modern day life. Let's start with the mainstreet. Fast food has taken over the whole country, we know that. The big brands are some of the most important powers, powerful powers in this country. Supermarkets as well. Big companies.

Thirty years ago, most of the food was largely local, and largely fresh. Now it's largely processed and full of all sorts of additives, extra ingredients, and you know the rest of the story. Portion sizes obviously a massive, massive problem. Labelling is a massive problem. The labelling in this country is a disgrace. They want to self-police themselves, the industry wants to self-police themselves. What, in this kind of climate? They don't deserve it. How can you say something is low-fat when it's full of so much sugar? Home. The biggest problem with the home is that used to be the heart of passing on food, food culture, what made our society. That ain't happening anymore. And, you know what, as we go to work, and as life changes, as life always evolves, we kind of have to look at it holistically. Step back for a moment, and readjust the balance. It ain't happening, it hasn't happened for thirty years, okay? I want to show you a situation that is very normal right now. The Edwards family.

*audio JO:* Let's have a talk. This stuff goes through you and your family's body every week and I need you to know that this is going to kill your children early. How are you feeling?

*audio Stacey Edwards:* I'm just feeling really sad and depressed right now, but you know, I want my kids to see the life and this isn't going to get them there. But I'm killing them (sobbing).

*audio JO:* Yes, you are, but we can stop that.

*Jamie Oliver:* Normal. Let's get on to schools, something that I'm fairly much a specialist in. School. What is school, who invented it? What's the purpose of school? School was always invented to arm us with the tools to make us creative, do wonderful things, make us earn a living, etc. etc. etc. You know it's been inside this tied box for a long, long time, okay? But we haven't really evolved it to deal with the health catastrophes of America, okay? School food is something that most kids, thirty one million a day, actually, have twice a day, more than often, breakfast and lunch, 180 days of the year. So you could say that school food is quite important really, judging the circumstances (laughter).

Before I crack into my rant, which I'm sure you're waiting for (laughter), I need to say one thing and it's fairly important in, hopefully, the magic that happens and unfolds in the next three months: the lunch ladies, the lunch cooks of America...I offer myself as their ambassador. I'm not slagging them off, they're doing the best they can do. They're doing their best, but they're doing what they're told, and what they've been told to do is wrong. The system is highly run by accountants, there's not enough or any food-knowledgeable people in the business. There's a problem – if you're not a food expert and you've got tight budgets and it's getting tighter, then you can't be creative, you can't duck and dive and write

different things around things. If you're an accountant and a box-ticker, the only thing you can do in these circumstances is buy cheaper shit. Now, the reality is, is the food your kids get every day is fast food, it's highly processed, there's not enough fresh food in there at all. You know, the amount of additives, E-numbers, ingredients, you wouldn't believe. There's not enough veggies at all. French fries are considered a vegetable. Pizza for breakfast. They don't even get given crockery; knives and forks, no! They're too dangerous! (laughter) There's scissors in the classroom, but knives and forks, no! And the way I look at it, if you don't have knives and forks in your school you're purely endorsing, from a state level, fast food, because it's hand-held. And yes, by the way, it is fast food; it's sloppy joes, it's burgers, it's wieners, it's pizzas, it's all of that stuff.

Ten percent of what we spend on health care, as I said earlier, is on obesity, and it's going to double. We're not teaching our kids. There's no statutory of rights to teach kids about food – elementary or secondary school, okay? We don't teach kids about food. And this is a little clip from an elementary school which is very common.

*Children:* (gasping)

*JO:* Who knows what this is?

*Child 1:* Potatoes

*JO:* Potatoes? So you think these are potatoes? Do you know what that is? Do you know what that is?

*Child 2:* Broccoli?

*JO:* What about this, my good old friend. Do you know what this is, honey?

*Child 3:* Celery?

*JO:* No...what do you think this is, darling?

*Child 4:* Onion!

*JO:* Onion? No.

*JO Voiceover:* Immediately you get a really clear sense of, do the kids know anything about where food comes from?

*JO:* Who know what that is?

*Child 5:* Uh, a pear?

*JO:* What do you think this is?

*Child 6:* I don't know.

*JO Voiceover:* If the kids don't know what stuff is, then they'll never eat it.

(end clip)

*Jamie Oliver:* Normal. England and America. Guess what fixed that? Two one-hour sessions. We've got to start teaching our kids about food in schools. Period. (applause)

I want to tell you about something that kind of epitomizes the trouble that we're in, guys, okay? I want to talk about something so basic as milk. Every kid has the right to milk at school. Your kids will be having milk at school – breakfast and lunch. Alright? They'll be having two bottles and most kids do, but milk ain't good enough anymore, because someone at the milk board – right? And don't get me wrong, I support milk – but someone at the milk board probably paid a lot of money for some geezer to work out that if you put loads of flavours in and colours in and sugar in milk, more kids will drink it. Yeah. And obviously, that's going to catch on; the apple board is work out if they make toffee apples they'll eat more apples, as well, you know what I mean? For me, there ain't no need to flavour the milk. Okay, there's sugar in everything, I know the ins and outs of those ingredients, it's in everything. Even the milk hasn't escaped the kind of modern day problems. There's our milk, there's our cartons, in that is nearly as much sugar as one of your favourite cans of fizzy pop. And they're having two a day. So, let me just

show you. We've got one kid here having eight tablespoons of sugar a day. There's your week. There's your month. And I took the liberty of putting in just the five years of elementary school sugar just from milk. Now I don't know about you guys, but judging the circumstances, any judge in the whole world would look at the statistics and the evidence and they would find any government of old guilty of child abuse. That's my belief. (applause)

Now, if I came up here, and I wish I could come up here today, and hang the cure of AIDS or cancer, you'd be fighting and scrambling to get to me. This, all this bad news, is preventable – that's the good news. It's very, very preventable. So, let's just think about: we've got a problem here, we need to reboot.

Okay, so in my world, what do we need to do? Here's the thing, it cannot just come from one source. To reboot and make real, tangible change, real change, so that I can look you in the white of the eyes and say, 10 years time, the history of your children's lives, happiness – and let's not forget, you're clever if you eat well, you know, you're going to live longer, all of that stuff – it will look different. So, supermarkets, where else do you shop so religiously? Week in, week out. How much money do you spend in your life in a food market? Love 'em, they just sell us what we want, alright. They owe us to put a food ambassador in every major supermarket. They need to help us shop they need to show us how to cook quick, tasty, seasonal meals for people that are busy. This is not expensive, it is done in some, and it needs to be done across the board in America soon, and quick. The big brands, the food brands, need to put food education at the heart of their businesses. I know easier said than done, it's the future. It's the only way. Fast food: with the fast food industry, it's very competitive. I've had lots of secret papers and deal-ins with fast food restaurants, I know how they do it. I mean, basically, they've weaned us on to these hits of sugar, salt and fat and X, Y, and Z and everyone loves them, right? So these guys are going to be part of the solution, but we need to get the government to work with all of the fast food purveyors and the restaurant industry and over a five, six, seven year period wean us off the extreme amounts of fat, sugar, fat, and all the other non-food ingredients. Now, also back to the sort of big brands...labelling, I said earlier, is an absolute farce and it's got to be sorted.

Okay, school. Obviously in schools, we owe it to them to make sure those 180 days of the year, from that little precious age of 4 to 18, 20, 24, whatever, they need to be cooked proper, fresh food from local girls on site, okay? There needs to be a new standard of fresh, proper food for your children, yeah? (applause) Under the circumstances, it's profoundly important that every single American child leaves school knowing how to cook ten recipes that will save their life. (applause) Life skills. That means that they can be students, young parents, and be able to sort of duck and dive around the basics of cooking no matter what recession hits them next time. If you can cook, recession money doesn't matter. If you can cook, time doesn't matter.

The workplace, we haven't really talked about it. It's now time for corporate responsibility to really look at what they feed or make available to their staff. The staff are the mums and dads of America's children. Marissa? Her father died in her hand, I think she'd be quite happy if corporate America could start feeding their staff properly. Definitely, they shouldn't be left out.

Let's go back to the home. Now, look, if we do all of this stuff, and we can. It's so achievable. You can care and be commercial, absolutely. But the home might need to start passing on cooking again, for sure. Pass it on as a philosophy. And for me, it's quite romantic but it's about if one person teaches three people how to cook something, and they teach three of their mates, that only has to repeat itself 25 times and that's the whole population of America. Romantic, yes, but most importantly, it's about

trying to get people to realize that every one of your individual efforts makes a difference. We've got to put back what's been lost. Huntington Kitchen - Huntington where I made this program, you know, we've got this prime time program that hopefully will inspire people to really get on this change. I truly believe that change will happen. Huntington Kitchen, I worked with a community, I worked in the schools, I found local, sustainable funding to get every single school in the area from the junk onto the fresh food. Six and a half grand per school. (applause) That's all it takes: six and a half grand per school. The kitchen is 25 grand a month, okay? This can do 5,000 people a year, which is ten percent of their population and it's people and people, it's local cooks teaching local people. It's free cooking lessons, guys. Free cooking lessons in the main street. This is real, tangible change. Real, tangible change.

Around America, if we just look back now, there's plenty of wonderful things going on. There's plenty of beautiful things going on. There are angels around America doing great things, in schools, farm-to-school setups, and garden setups, education. There are amazing people doing this already. The problem is they all want to roll out what they're doing to the next school and the next, but there's no cash. We need to recognize the experts and the angels quickly, identify them and allow them to easily find the resource to keep rolling out what they're already doing and doing well. Businesses of America need to support Mrs. Obama to do the things that she wants to do (applause).

And, look, I know it's weird having an English person standing before you talking about all of this. All I can say is that I care. I'm a father. And I love this country. And I believe, truly, actually, that if change can be made in this country, beautiful things will happen around the world. If America does it, I believe other people will follow. It's incredibly important. (applause)

When I was in Huntington trying to get a few things to work when they weren't, I thought if I had a magic wand, what would I do? And I thought, you know what, I just love to be put in front of some of the most amazing movers and shakers in America, and a month later, TED phoned me up and gave me this award. I'm here.

So my wish (deep breath) ...dyslexic, so I'm a bit slow...(laughter) My wish, is for you to help a strong, sustainable movement to educate every child about food. To inspire families to cook again, and to empower people everywhere to fight obesity (applause).

*Jon Steinman:* Jamie Oliver speaking at the 2010 TED Conference in Long Beach California. When we return after this short musical break, two more talks featured as part of the annual TED Conferences, Carolyn Steel on the history of how cities fed themselves and Christien Meindertsma on the 185 *non*-food products made from pigs.

## **music**

*JS:* Hawaiian artist Bluetech alongside the Colorado/California duo Lynx and Janover off the recently released Love Songs to the Source on Canada's Interchill Records. This is Deconstructing Dinner – produced in Nelson, British Columbia at Kootenay Co-op Radio CJLY. I'm Jon Steinman. Today's broadcast is archived on-line at [deconstructingdinner.ca](http://deconstructingdinner.ca) and the October 14<sup>th</sup>, 2010 episode.

The feature of today's episode is the increasingly popular TEDTalks – a small non-profit devoted to what they call, "Ideas Worth Spreading." Starting out in 1984 as a conference bringing together people from three worlds: Technology, Entertainment, Design, TED has since broadened its scope to include two annual conferences in California, a global conference in the UK and many on-line resources where more

than 700 TEDTalks are now available.

TED believes in the power of ideas to change attitudes, lives and ultimately, the world and a number of the talks delivered at their annual conferences involve food.

With Jamie Oliver leading off the broadcast today, we now arrive at architect and author Carolyn Steel. Carolyn uses food as a medium to read cities and understand how they work. In her book *Hungry City*, she traces and puts into historical context food's journey from land to urban table and thence to sewer. Cities, like people, are what they eat. Every day in a city the size of London, 30 million meals are served, but where does all the food come from. In this talk, Carolyn Steel discusses the daily miracle of feeding a city, and shows how ancient food routes shaped the modern world. Carolyn spoke in July 2009 in Oxford, UK.

*Carolyn Steel:* (applause) How do you feed a city? It's one of the great questions of our time. Yet, it's one that's rarely asked. We take it for granted that if we go into a shop or a restaurant or indeed into this theatre foyer in about an hour's time there's gonna be food there waiting for us having magically come from somewhere. But when you think that every day for a city the size of London, enough food has to be produced, transported, bought and sold, cooked, eaten, disposed of, and that something similar has to happen every day for every city on Earth, it's remarkable that cities get fed at all.

We live in places like this as if they're the most natural things in the world, forgetting that because we're animals and that we need to eat, we're actually as dependent on the natural world as our ancient ancestors were. And as more of us move into cities, more of that natural world is being transformed into extraordinary landscapes like the one behind me, the soybean fields in Mato Grosso in Brazil, in order to feed us. These are extraordinary landscapes but few of us ever get to see them. And increasingly, these landscapes are not just feeding us, either. As more of us move into cities, more of us are eating meat so that a third of the annual grain crop globally now gets fed to animals rather than to us human animals. And given that it takes three times as much grain, actually ten times as much grain, to feed a human if it's passed through an animal first, that's not a very efficient way of feeding us.

And it's an escalating problem, too. By 2050, it's estimated that twice the number of us are going to be living in cities and it's also estimated that there's going to be twice as much meat and dairy consumed, so meat and urbanism are rising hand in hand, and that's going to pose an enormous problem. Six billion hungry carnivores to feed by 2050. That's a big problem and, actually, if we carry on as we are, it's a problem we're very unlikely to be able to solve. Nineteen million hectares of rainforest are lost every year to create new arable land. Although, at the same time, we're losing an equivalent amount of existing arable to salinization and erosion. We're very hungry for fossil fuels, too; it takes about ten calories to produce every calorie of food that we consume in the west. And even though this food that we're producing at great cost, we don't actually value it. Half the food produced in the USA is currently thrown away and to end all of this, at the end of this long process, we're not even managing to feed the planet properly. A billion of us are obese, while a further billion starve.

None of it makes very much sense. And when you think that 80% of global trade in food now is controlled by just five multi-national corporations, it's a grim picture. As we're moving into cities, the world is also embracing a western diet and if we look to the future, it's an unsustainable diet.

So how did we get here and, more importantly, what are we going to do about it? Well, to answer the slightly easier question first, about ten thousand years ago, I would say, is the beginning of this process

in the ancient Near East known as the Fertile Crescent because as you can see it was crescent shaped and it was also fertile. And it was here about ten thousand years ago that two extraordinary inventions: agriculture and urbanism happened roughly in the same place and at the same time. And this is no accident because agriculture and cities are bound together – they need each other. Because it was the discovery of grain via ancient ancestors for the first time produced a food source that was large enough and stable enough to support permanent settlements. And if we look at what those settlements were like, we see that they were compact, they were surrounded by productive farm land and dominated by large temple complexes like this one at Ur, that were, in fact, effectively spiritualized, central food distribution centres because it was the temples that organized the harvest, gathered in the grain, offered it to the Gods, and then offered the grain that the Gods didn't eat back to the people. So if you like, the whole spiritual and physical life of these cities was dominated by the grain and the harvest that sustained them.

And in fact, that's true of every ancient city. But of course not all of them were that small and famously, Rome had about a million citizens by the first century, A.D. So how did a city like this feed itself? The answer is what I call ancient food miles. Basically, Rome had access to the sea which made it possible for it to import food from a very long way away. This is the only way it was possible to do this in the ancient world because it was very difficult to transport food over roads which were rough; the food obviously went off very quickly. So Rome effectively waged war on places like Carthage and Egypt just to get its paws on their grain reserves. And in fact, you could say that the expansion of the empire was really sort of one long, drawn-out, militarized shopping spree, really. In fact, I love the fact - I just have to mention this – that Rome in fact used to import oysters from London at one stage, I think that's extraordinary.

Anyway, so Rome shaped its hinterland through its appetite. But the interesting thing is the other thing also happened in a pre-industrial world. If we look at a map of London in the 17<sup>th</sup> Century we can see that its grain, which is coming in from the Thames along the bottom of this map. So the grain markets were to the south of the city and then the roads leading up from them to Cheapside, which was the main market, were also grain markets. And if you look at the names of one of those streets, Bread Street, you can tell what was going on there 300 years ago.

And the same of course is true for fish. Fish was, of course, coming in by river as well. Same thing. And of course Billingsgate, famously, was London's fish market operating on site here until the mid-1980s, which is extraordinary, really, when you think about it. Everybody else was wandering around with mobile phones that looked like bricks and then sort of smelly fish happening sort of down on the port. This is another thing about food in cities. Once its roots into the cities are established, they very rarely move.

Meat is a very different story, because of course animals could walk into the city so much of London's meat was coming in from the northwest from Scotland and Wales. So it was coming in and arriving in the city at the northwest which is why Smithfield, London's very famous meat market, was located up there. Poultry was coming in from East Anglia and so on to the northeast – I feel a bit like a weather woman doing this, anyway (laughter) – and so the birds were coming with their feet protected in little canvas shoes and then when they hit the eastern end of Cheapside, that's where they were sold which is why it's called Poultry.

And, in fact, if you look at the map of any city, built before the industrial age, you can trace food coming into it. You can actually see how it was physically shaped by food both by reading the names of the streets, which gives you lots of clues – the Friday Street on the previous slide was where you went to



buy your fish on a Friday – but also you have to imagine it full of food because the streets and the public spaces were the only places where food was bought and sold. And if we look at an image of Smithfield in 1830 you can see that it would have been very difficult to live in a city like this and be unaware of where your food came from. In fact, if you were having Sunday lunch the chances were it was moving or bleeding outside your window about three days earlier (laughter). So this was obviously an organic city, part of an organic cycle.

And then ten years later, everything changed. This is an image of the great west in 1840 and as you can see some of the earliest train passengers were pigs and sheep. So all of a sudden these animals were no longer walking into market. They're being slaughtered out of sight and mind somewhere in the countryside and they're coming into the city by rail. And this changes everything. To start off with, it makes it possible for the first time to grow cities, really, any size and shape in any place. Cities used to be constrained by geography. They used to have to get their food through very difficult, physical means. All of a sudden, they're effectively emancipated from geography. And as you can see from these maps of London in the 90 years after the trains came, it goes from being a little blob that it was quite easy to feed by animals coming in on foot and so on to a large splurge that it would be very, very difficult to feed with anybody on foot, either animals or people. And of course that was just the beginning. After the trains came cars and really this marked the end of this process. It's the final emancipation of the city from any apparent relationship with nature at all. And this is the kind of city that's devoid of smell, devoid of mess, certainly devoid of people because nobody would have dreamt of walking in such a landscape. In fact, what they did to get food was they got into their cars, drove to a box somewhere on the outskirts, came back with a week's worth of shopping and wondered what on Earth to do with it. And this really is the moment when our relationship both with food and cities changes completely. Here we have food that used to be the central, social core of the city at the periphery. It used to be a social event, buying and selling food, now it's anonymous. We used to cook, now we just add water or, you know, a little bit of egg if you were making a cake or something. We don't smell food to see if it's okay to eat, we just read the back of a label on a packet. And we don't value food. We don't trust it, so instead of trusting it, we fear it, and instead of valuing it, we throw it away.

One of the great ironies of modern food systems is that they've made the very thing they promised to make easier much harder by making it possible to build cities anywhere and any place. They've actually distanced us from our most important relationship which is that of us and nature. And also they've made us dependent on systems that only they can deliver that as we've seen are unsustainable. So what are we going to do about that?

It's not a new question. 500 years ago, it's what Thomas More was asking himself. This is the frontispiece of his book *Utopia*, and it was a series of semi-independent city states if that sounds remotely familiar. A day's walk from one another where everyone was basically farming-mad and grew vegetables in their back gardens, and ate communal meals together, and so on. And I think you could argue that food is a fundamental ordering principle of *Utopia*, even though More never framed it that way.

And here's another very famous utopian vision, that of Ebenezer Howard, the *Garden City*. Same idea, series of semi-independent city-states, little globs of metropolitan stuff with arable land around joined to one another by railway. And again, food could be said to be the ordering principle of his vision. It even got built, but nothing to do with this vision that Howard had. And that is the problem with these utopian ideas, that they *are* utopian. Utopia was actually a word that Thomas More used deliberately, it was a kind of joke because it's got a double derivation from the Greek; it can either mean a good place

or no place, because it's ideal, it's an imaginary thing, we can't have it. And I think, as a conceptual tool, thinking about the very deep problem of human dwelling, that makes it not much use.

So I've come up with an alternative, which is Sitopia, from the ancient Greek, "sitos" for food, and "topos" for place.

I believe we already live in Sitopia. We live in a world shaped by food and if we realized that, we can use food as a really powerful tool, conceptual tool, design tool to shape the world differently. So if we were to do that, what might Sitopia look like?

Well I think it looks a bit like this. I have to use this slide; it's just the look on the face of the dog, but anyway (laughter). This is food at the centre of life, at the centre of family life, being celebrated, being enjoyed, people taking time for it. This is where food should be in our society. But you can't have scenes like this unless you have people like this. By the way, these can be men as well (laughter). It's people who think about food, who think ahead, who plan, who can stare at a pile of raw vegetables and actually recognize them (laughter). We need these people they're part of a network because without these kinds of people, we can't have places like this. Here, I deliberately chose this because it is a man buying a vegetable. But networks, markets where food is being grown locally, it's common, it's fresh. It's part of the social life of the city. Because without that, you can't have this kind of place; food that's grown locally and also it's part of the landscape and is not just a zero-sum commodity off in some unseen hell-hole. Cows with a view. Steaming piles of humus. This is basically bringing the whole thing together.

And this is a community project that I visited recently in Toronto. It's a greenhouse where kids get told all about food and growing their own food. Here's a plant called Kevin, or maybe it's a plant belonging to a kid called Kevin, I don't know. But anyway, these kinds of projects that are trying to reconnect us with nature are extremely important.

So Sitopia for me is really worth seeing. It's basically recognizing that Sitopia already exists in little pockets everywhere. The trick is to join them up, to use food as a way of seeing. And if we do that, we're gonna stop seeing cities as big, metropolitan, unproductive blobs like this. We're going to see them more like this, as part of the productive, organic framework of which they are inevitably a part, symbiotically connected. But of course, that's not a great image either because we need not to be producing food like this anymore. We need to be thinking more about permaculture, which is why I think this image just sums up for me the kind of thinking that we need to be doing. It's a reconceptualization of the way food shapes our lives. The best image I know of this is from 650 years ago. It's Ambrogio Lorenzetti's, "Allegory of Good Government", it's about the relationship between the city and the countryside. And I think the message of this is really clear: if the city looks after the country, the country will look after the city.

And I want us to ask now – what would Ambrogio Lorenzetti paint, if he painted this image today? What would an allegory of good government look like today. Because I think it's an urgent question, it's one we have to ask, and we have to start answering. We know we are what we eat, we need to realize that the world is also what we eat. But if we take that idea, we can use food as a really powerful tool to shape the world better. Thank you very much. (applause)

*anonymous Woman:* That was Carolyn Steel, recorded at TEDGlobal 2009 in Oxford, England, July 2009. For more information on TED, visit [TED.com](http://TED.com).

JS: This is Deconstructing Dinner and in the last clip on today's show, another speaker from the annual TED Global conference, Christien Meindertsma, a Dutch artist who explores raw materials in thoughtful ways, making simple books and products to better showcase once-hidden processes.

Her second book, titled *PIG 05049*, documents the astounding array of products that different parts of a pig named 05049 could support -- revealing the lines that link raw materials with producers, products and consumers that have become so invisible in an increasingly globalized world. *PIG 05049* was acquired by New York's Museum of Modern Art this past winter. Christien spoke in July 2010 in Oxford, UK.

*Christien Meindertsma:* (applause) Hello, I would like to start my talk with, actually, two questions. And the first one is: how many people here actually eat pig meat, please raise your hand. Oh, that's a lot. And how many people have actually seen a live pig producing this meat in the last year? Hmm, in the Netherlands where I come from, you actually never see a pig, which is really strange, because in a population of 60 million people we have 12 million pigs and of course the Dutch can't eat all these pigs. They eat about 1/3<sup>rd</sup> and the rest is exported to all kinds of countries in Europe and the rest of the world. A lot goes to the UK, Germany. And what I was curious about is, 'cause historically, the whole pig would be used up until the last bits and nothing would be wasted. And I was curious to find out if this was actually still the case.

I spent about three years researching and I followed this one pig with number 05049 all the way up until the end until what product it is made of. And in these years, I met all kinds of people like, for instance, farmers and butchers which seems logical. But I also met aluminium mold makers, and ammunitions producers and all kinds of people. And what was striking to me was that the farmers actually had no clue what was made of their pigs, but the consumers, as in us, also had no idea of the pigs being in all these products.

So what I did was I took all this research and made it into a, well basically, it's a product catalogue of this one pig and it carries a duplicate of its ear tag on the back. And it consists of seven chapters, the chapters are: skin, bones, meat, internal organs, blood, fat, and miscellaneous (laughter). In total, they weigh 103.7 kilograms and to show you how often you actually meet part of this pig in a regular day, I want to show you some images of the book.

You probably start the day with a shower, so in soap, fatty acids made from boiling pork bone fat are used as a hardening agent but also for giving it a pearl-like effect. Then if you look around you in the bathroom, you see lots more products like shampoo, conditioner, anti-wrinkle cream, body lotion, but also toothpaste. So before breakfast, you've already met the pig so many times.

Then at breakfast, the pig that I followed, the hairs of the pig or the proteins from the hairs of the pig were used as an improver of dough (gasps followed by laughter). Well, I mean, that's what the producer says, it's an improver of dough, of course. In low-fat butter, and actually in many low-fat products, when you take the fat out, you actually take the taste and the texture out. So what they do is put gelatine back in in order to retain the texture.

Well, when you're off to work, under the road, or under the buildings that you see, there might very well be cellular concrete which is a very light kind of concrete that's actually got proteins from bones inside and it's also fully reusable.

In the train brakes, at least in the German train brakes, there's this part of the brake that's made of bone mash. And in cheesecake and all kinds of desserts like chocolate mousse, tiramisu, vanilla pudding, everything that's cooled in the supermarket, there's gelatine to make it look good.

Fine bone china – this is a real classic. Of course the bone in fine bone china gives it its translucency and also its strength, in order to make these really fine shapes like this did.

In interior decorating, the pig is actually quite there. It's used in paint for the texture but also for the glossiness. In sandpaper, bone glue is actually the glue between the sand and the paper. And then in paintbrushes, hairs are used because apparently they're very suitable for making paintbrushes because of their hard-wearing nature.

I was not planning on showing you any meat because of course half of the book is meat and you will probably know what meats they are, but I didn't want you to miss out on this one because this, well it's called portion-controlled meat cut. And this is actually sold in the frozen area of the supermarket. And what it is, it's actually steak so this is sold as cow, but what happens when you slaughter a cow, at least in industrial factory farming, they have all these little bits of steak left that they can't actually sell as steaks. So what they do is they glue them all together with fibrin from pig blood into this really large sausage, then freeze the sausage, cut it into little slices, and sell those as steak. And this also happens with tuna and scallops.

So with the steak, you might drink a beer. In the brewing process, there's lots of cloudy elements in the beer, so to get rid of these cloudy elements, what some companies do is they pour the beer through a sort of gelatine sieve in order to get rid of those cloudiness. This also goes for wine as well as fruit juice. There's actually a company in Greece that produces these cigarettes that actually contain haemoglobin from pigs in the filter. And according to them, this creates an artificial lung in the filter (laughter). So this is actually a healthier cigarette.

Injectable collagen. Since the 70s, collagen from pigs has been used for injecting into wrinkles and the reason for this is that pigs are actually quite close to human beings so the collagen is as well.

Well, this must be the strangest thing I found. This is a bullet coming from a very large ammunition company in the United States. While I was making the book, I contacted all the producers of products because I wanted them to send me the real samples and the real specimens so I sent this company an email saying, "Hello, I'm Christien, I'm doing this research and can you send me a bullet?" (laughter) And well, I didn't expect them to even answer my email but they answered and said, "Well, thank you for your email, what an interesting story, are you in any way related to the Dutch government?" I thought that was really weird; as if the Dutch government sends emails to anyone (laughter).

So the most beautiful thing I found, at least what I think is the most beautiful in the book, is this heart valve. It's actually a very low-tech and high-tech product at the same time. The low-tech bit is that it's literally a pig's heart valve mounted in the high-tech bit, which is a memory metal casing. What happens is this can be implanted into a human heart without open heart surgery. And once it's in the right spot, they remove the outer shell and the heart valves, well it gets this shape and at that moment it starts beating instantly. It really sort of magical moment.

So this is actually a Dutch company, so I called them up and I asked can I borrow a heart valve from you? And the makers of this thing were really enthusiastic, so they were like, "Okay, we'll put it in a jar for

you with formalin, and you can borrow it.” Great. And then I didn’t hear from them for weeks so I called and I asked what’s going on with the heart valve. And then they said, “Well the director of the company decided not to borrow you this heart valve because he doesn’t want his product to be associated with pigs.” (laughter)

Well the last product from the book that I’m showing you is renewable energy. Actually to show that my first question, if pigs are used up until the last bit was still true, well it is. Because everything that can’t be used for anything else is made into a fuel that can be used as a renewable energy source.

In total, I found 185 products. And what they showed me is that, firstly, it’s at least to say, odd, that we don’t treat these pigs as absolute kings and queens. And the second is that we actually don’t have a clue of what all these products that surround us are made of. You might think I’m very fond of pigs but actually, well I am a little bit, but I’m more fond of raw materials in general. I think that in order to take better care of what’s behind our products, so the livestock, the crops, the plants, the non-renewable materials, but also the people that produce these products, the first step would actually to be to know that they’re there. Thank you very much. (applause)

*JS:* Christien Meindertsma speaking in July 2010 at the TEDGlobal Conference in Oxford, UK. Today’s broadcast featuring three TEDTalks is archived on-line at [deconstructingdinner.ca](http://deconstructingdinner.ca) and the October 14<sup>th</sup>, 2010 broadcast.

Be sure to check out the TED website for many more inspiring speakers at [ted.com](http://ted.com). And a thanks to the TED organization for making these three talks heard today available.

### **ending theme**

*JS:* That was this week’s edition of Deconstructing Dinner produced and recorded at Nelson, British Columbia’s Kootenay Co-op Radio. I’ve been your host, Jon Steinman.

I thank my technical assistant, John Ryan. The theme music for Deconstructing Dinner is courtesy of Nelson area resident, Adham Shaikh.

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