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# Hungry City

Carolyn Steel

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## About the Author

Carolyn Steel is an architect, lecturer and writer. Since graduating from Cambridge University, she has combined architectural practice with teaching and research into the everyday lives of cities, running design studios at the LSE, London Metropolitan University and at Cambridge, where her lecture course 'Food and the City' is an established part of the degree programme. A director of Cullum and Nightingale Architects, she was a Rome scholar, has written for the architectural press, and presented on the BBC's *One Foot in the Past*.

*Hungry City* won the RSL Jerwood Award for Non-fiction (for a work in progress) in 2006.

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For my mother and father

CAROLYN STEEL

# Hungry City

How Food Shapes Our Lives

VINTAGE BOOKS  
London



# Introduction

Close your eyes and think of a city. What do you see? A jumble of rooftops stretching off into the distance? The chaos of Piccadilly Circus? The Manhattan skyline? The street where you live? Whatever it is you imagine, it probably involves buildings. They, after all, are what cities are made of, along with the streets and squares that join them all together. But cities are not just made of bricks and mortar, they are inhabited by flesh-and-blood humans, and so must rely on the natural world to feed them. Cities, like people, are what they eat.

*Hungry City* is a book about how cities eat. That is the quick definition. A slightly wordier one might be that it is about the underlying paradox of urban civilisation. When you consider that every day for a city the size of London, enough food for thirty million meals must be produced, imported, sold, cooked, eaten and disposed of again, and that something similar must happen every day for every city on earth, it is remarkable that those of us living in them get to eat at all. Feeding cities takes a gargantuan effort; one that arguably has a greater social and physical impact on our lives and planet than anything else we do. Yet few of us in the West are conscious of the process. Food arrives on our plates as if by magic, and we rarely stop to wonder how it got there.

*Hungry City* deals with two major themes – food and cities – yet its true focus is on neither. It is on *the*

*relationship between the two*: something no other book has ever directly addressed. Both food and cities are so fundamental to our everyday lives that they are almost too big to see. Yet if you put them together, a remarkable relationship emerges – one so powerful and obvious that it makes you wonder how on earth you could have missed it. Every day we inhabit spaces food has made, unconsciously repeating routine actions as old as cities themselves. We might assume that takeaways are a modern phenomenon, yet five thousand years ago, they lined the streets of Ur and Uruk, two of the oldest cities on earth. Markets and shops, pubs and kitchens, dinners and waste-dumps have always provided the backdrop to urban life. Food shapes cities, and through them, it moulds us – along with the countryside that feeds us.

So why write about food and cities, and why now? With cities already gobbling up 75 per cent of the earth's resources and the urban population expected to double by 2050, the subject is certainly topical. Yet the real answer is that *Hungry City* is the result of a lifelong obsession. Seven years in the making, it has taken a lifetime to research, although for most of that time, I had no idea that it – or indeed, any book – would be the outcome. *Hungry City* is an exploration of the way we live, from the perspective of someone who decided at the age of ten she wanted to be an architect, and has spent the rest of her life trying to work out why.

Perhaps because I was born and bred in central London, I have always been interested in buildings. However, my interest was never limited to the way they looked, or to their physical form. More than anything else, I wanted to know *how buildings were inhabited*. Where the food came in, how it got cooked, where the horses were stabled, what happened to the rubbish – these details fascinated me as much as the perfect proportions of their facades. Most of all, I loved the unspoken bond between the two: the

public/private, upstairs/downstairs divisions within buildings, and the way they were subtly interwoven. I suppose I have always been drawn to the hidden relationships between things.

This predilection probably came from my grandparents' hotel in Bournemouth, where I spent most of my holidays as a child. Wandering around the hotel on my own, I had the excitement of knowing both its 'front of house' and 'backstage' areas at once, and of being able to move between the two at will. I always preferred to lurk in the service quarters: the sculleries full of teapots and hot-water bottles; the laundry room with its piles of freshly ironed, neatly folded linen; the porters' room, with its ancient workbench and the stench of tobacco and furniture polish. But more thrilling by far were the kitchens, with their worn tiled floors and greasy enamel walls, mounds of butter and chopped vegetables, steaming stills and copper pans full of fragrant boiling stock. I loved those rooms, not just for their pragmatic homeliness, but for the fact that they were separated from all the antiques and politeness of the public rooms by the merest swing of a green baize door. The allure of such thresholds has never left me.

Looking back, I suspect my love of food must have begun then, although it was only years later that I realised that my twin passions for food and architecture were really two aspects of the same thing. It was architecture that I pursued as a career, first studying it at Cambridge, and then, two years after qualifying, returning there to teach. By then, I understood architecture to be the embodiment of human dwelling in its fullest sense, with politics and culture as its social contexts, landscape and climate its physical ones, and cities its greatest manifestation. Architecture encompassed every aspect of human life – which made the teaching of it in an architecture school somewhat limiting. I felt increasingly that in order to study architecture, one had to look away from it – only then could

one see it for what it really was. It seemed to me that what was missing from the traditional discipline was life itself: the very thing it was supposed to support. I found the same in practice: discussing projects with clients, it was clear to me that I had somehow learnt to think and speak in an architectural code that excluded non-practitioners. This struck me as not only wrong, but potentially disastrous. How could architects expect to design spaces for people to inhabit, if we had no proper dialogue with them?

I began to look for ways of bridging the gap: to bring life into architecture, and architecture to life. My search took me to Rome in the 1990s, where I studied the everyday habits of a local neighbourhood over the course of 2,000 years; and to the London School of Economics, where I was director of the first urban design studio ever held there. My time at the LSE was fascinating: there were architects, politicians, economists, developers, sociologists, housing experts and engineers all gathered together in one room, trying (and failing) to find a common language with which to discuss cities. It was then that I hit on the idea of using food as a common medium. How would it be, I wondered, if one tried to describe a city through food? I was confident that such a thing could be done, but had no idea how one might go about it, or where it would lead. Seven years later, this book is the result.

*Hungry City* began as an attempt to describe one city – London – through food, but it became much more than that. It was only through writing the book that I realised I had stumbled on a connection so profound that its applications were virtually limitless. Writing it has been a bizarre as well as lengthy process, since it has taken place during a period in which many of the themes I was linking together – food miles, the obesity epidemic, urbanisation, the power of supermarkets, peak oil, climate change – were rising inexorably in the public consciousness. Eventually, it got to a point where I could barely turn on the radio or TV

without dashing to my computer to take notes. Food has become a hot topic in contemporary Britain, and a very fast-moving one. I dare say that by the time you are reading this, the scene will have shifted again. No matter. *Hungry City* taps into the zeitgeist, yet its essential themes are as old as civilisation itself.

With a book as horizontal in scope as mine, I have had to thread my arguments carefully. *Hungry City* is not an encyclopaedic book; it is more of an introduction to a way of thinking. It uses London (and other cities in the West) to draw out eternal themes that are global in reach: to trace the critical path of urban civilisation as seen through food, from the ancient Near East, through Europe and America, to modern-day China. The book follows food's journey from land and sea to city, through market and supermarket to kitchen and table, waste-dump and back again. Each chapter begins with a snapshot of contemporary London, exploring the historical roots of that stage of food's journey and the issues it raises. The chapters deal in turn with farming, food transport, shopping, cooking, eating and waste, asking how each affects our lives, and impacts on the planet. The final chapter asks how we might use food to rethink cities in the future – to design them and their hinterlands better, and live in them better too.

Writing *Hungry City* has changed the way I see the world so fundamentally that I now struggle to imagine how I saw it before. To see the world through food, as I now do, is to see it with lateral vision; to understand how apparently disparate phenomena are in fact connected. I very much hope that reading the book will change the way you see things too – that it will show you how powerfully food shapes *all* our lives, and give you the power and motivation to engage more with food, and through it, to help shape our common destiny.

# Chapter 1

## The Land

The supply of food to a great city is among the most remarkable of social phenomena - full of instruction on all sides.

George Dodd<sup>[1](#)</sup>



Detail of *The Allegory of Good Government* by Ambrogio Lorenzetti. A rare glimpse of city and country in perfect harmony.

## Christmas Dinner

In the run-up to Christmas a couple of years ago, anyone with access to British television and some recording equipment could treat themselves to a surreal evening's viewing. At nine p.m. one night, two programmes were broadcast simultaneously about how our Christmas dinners are produced. You had to be a bit keen, even obsessed, to watch both, but if you chose to make a night of it as I did, the effect was truly discombobulating. First up was *Rick*

*Stein's Food Heroes Christmas Special*, in which Britain's favourite champion of high-quality local produce set off in his Land Rover (accompanied by faithful terrier Chalky) to sniff out the finest smoked salmon, turkey, chipolatas, Christmas pudding, Stilton and fizz the nation has to offer.<sup>2</sup> An hour of gorgeous landscapes, uplifting music and mouthwatering fodder later, I could hardly bear to wait six days before tucking into the promised feast for real. But lurking on my DVD recorder was the antidote to all that. While Rick and Chalky had been busy charming millions of us into the festive mood on BBC2, on Channel 4 the *Sun* journalist Jane Moore had been putting off several million others from ever eating Christmas dinner again.

In *What's Really in Your Christmas Dinner*, Moore explored the same traditional meal as Rick Stein, but sourced her ingredients from rather different suppliers. Using secretly shot footage of unspecified industrial units, she showed how most of our Christmas food is produced, and it wasn't a pretty sight. There were pigs on a Polish factory farm confined to sow stalls too narrow to turn around in; turkeys crowded together in massive dark sheds with so little space to move that many went lame.<sup>3</sup> The normally unruffled chef Raymond Blanc was wheeled in to perform a post-mortem on one specimen, revealing its pathetically weak bones and blood-swollen liver (both the result of premature growth) with a zeal that was close to macabre. If life was grim for these birds, the manner of their death was even worse. Slung into trucks by their legs, they were hung upside down from hooks on a conveyor belt, their heads dipped into a stun bath that rendered them unconscious (although not always) before having their throats cut.

Back on BBC2, Rick Stein also touched on what he called the 'unmentionable side of turkeys - slaughtering them'. The subject came up when he visited Andrew Dennis, an organic farmer whose turkeys are reared in



flocks of 200 or fewer in natural woodland, where they can forage freely, just as their forebears would have done in the wild. Dennis sees his turkey-rearing enterprise as an exemplar that he hopes will be followed by others. 'Of all farm animals,' he says, 'turkeys are by far the most abused. And that's why we're trying to produce a blueprint for compassionate turkey rearing and breeding.' When the time comes for their slaughter, the birds are taken to an old barn familiar to them and killed individually, out of sight of one another. When his slaughterman failed to turn up in 2002, Dennis practised what he preaches, killing every one of his birds himself. 'It's the quality of life that's so important, and the quality of death,' he says, 'and if you can provide for both those things, I think I'm comfortable with what we do.' So there you have it. If you want to eat turkey for Christmas and still feel good about yourself, you can either shell out about £50 for a 'happy' bird, or you can spend less than a quarter of that and try not to think too hard about how the animal was reared and killed. No prizes for guessing what the majority of us do.

One could be forgiven for feeling confused about food in contemporary Britain. There is almost blanket coverage of it in the media, increasingly polarised between the 'foodie' strand, for which Rick Stein is justly renowned, and the sort of shock-horror exposé delivered that night by Jane Moore. With farmers' markets, speciality food shops and fancy restaurants popping up all over the place, we are supposedly in the midst of a gastronomic revolution, yet our everyday food culture belies this. We have never spent less on food than we do now: food shopping accounted for just 10 per cent of our income in 2007, down from 23 per cent in 1980. Eighty per cent of our groceries are bought in supermarkets, and when we shop for food, our choices are overwhelmingly influenced by cost, well ahead of taste, quality or healthiness.<sup>4</sup> We are losing our kitchen skills too: half of those under the age of 24 say they never cook from

scratch, and one in three meals eaten in Britain is a ready meal. Hardly a revolution.

In truth, British food culture is little short of schizophrenic. To read the Sunday papers, you would think we were a nation of rampant gastronomes, yet few of us know much about food, or care to invest our time and effort in it. Despite the recently acquired veneer of foodie culture, we remain Europe's leading nation of 'fuellies', happy to let food take a back seat as we get on with our busy lives, unconscious of what it takes to keep us fuelled.<sup>5</sup> We have become so used to eating cheaply that few of us question how it is possible, say, to buy a chicken for less than half the cost of a packet of cigarettes. Although a moment's thought – or a brief channel-flick to *What's Really in Your Christmas Dinner* – would soon tell us, most of us steer clear of such sobering revelations. It is as if the flesh we put in our mouths bears no relation to the living bird. We simply don't make the connection.

So how come a country of dog-owning bunny-huggers like us can be so callous about the critters we breed to eat? It all comes down to our urban lifestyles. The oldest industrialised nation on earth, we have been losing touch with rural life for centuries. Over 80 per cent of us in Britain now live in cities, and the nearest most of us ever get to the 'real' countryside – the working sort, at any rate – is when we see it on television. We have never been more cut off from farms and farming, and while most of us probably suspect, deep down, that our eating habits are having nasty consequences somewhere on the planet, those consequences are sufficiently out of sight to be ignored.

Even if we wanted to, supplying ourselves with the amount of meat we eat today with free-range animals would be next to impossible. We British have always been a carnivorous lot: not for nothing did the French dub us *les rosbifs*. But a century ago, that meant each of us ate around 25 kg of meat a year, not the whopping 80 kg we

eat today.<sup>6</sup> Meat was once a luxury food, and leftovers from the Sunday roast – if you were lucky enough to have one – were eked out during the week. No longer. Meat today is an everyday commodity; something we consume without thinking. Every year we eat 35 million turkeys, and at Christmas we get through 10 million birds. That's 50,000 times more than Andrew Dennis produces. Even if we could find 50,000 farmers as dedicated as he is, to rear all our turkeys the Dennis way would take some 34.5 million hectares: double the total amount of farmland the UK currently has in production.<sup>7</sup> And turkeys are just the tip of the iceberg – we currently eat some 820 million chickens every year in the UK. Try rearing those by hand.

The modern food industry has done strange things to us. By supplying us with cheap and plentiful food at little apparent cost, it has satisfied our most basic needs, while making those needs appear inconsequential. That applies not just to meat, but to every type of food. Potatoes and cabbages, oranges and lemons, sardines and kippers; whatever we eat, the scale and complexity of the process of getting it to us is considerable. By the time it reaches us, our food has often travelled thousands of miles through airports and docksides, warehouses and factory kitchens, and been touched by dozens of unseen hands. Yet most of us live in ignorance of the effort it takes to feed us.

No inhabitant of a pre-industrial city could have been so unaware. Before the railways, supplying themselves with food was the biggest headache cities faced, and evidence of the struggle was unavoidable. Roads were full of carts and wagons carrying vegetables and grain, rivers and docksides were packed with cargo ships and fishing boats, streets and back yards were full of cows, pigs and chickens. Living in such a city, there could be no doubt as to where your food came from: it was all around you, snorting and steaming and getting in the way. City-dwellers in the past had no

choice but to acknowledge the role of food in their lives. It was present in everything they did.

We have lived in cities for thousands of years, yet we remain animals, defined by animal needs. And therein lies the basic paradox of urban life. We inhabit cities as if that were the most natural thing in the world, yet in a deeper sense, we still dwell on the land. Civilisation may be urban, but the vast majority of people in the past were hunters and gatherers, farmers and serfs, yeomen and peasants, who led predominantly rural lives. Theirs is largely a forgotten history, yet without them, none of the rest of the human narrative would have been possible. The relationship between food and cities is endlessly complex, but at one level it is utterly simple. Without farmers and farming, cities would not exist.

As civilisation is city-centric, it is hardly surprising that we have inherited a lopsided view of the urban-rural relationship. Visual representations of cities have tended to ignore their rural hinterlands, somehow managing to give the impression that their subjects were autonomous, while narrative history has relegated the countryside to a neutral green backdrop, good for fighting battles in, but little else. It is a curious distortion of the truth, yet when you consider the extraordinary power that rural communities could have wielded over cities had they ever realised their potential, an understandable one. For 10,000 years, cities have relied on the countryside to feed them, and the countryside, under various degrees of duress, has obliged. City and country have been locked together in an uneasy symbiotic clinch, with urban authorities doing all in their power to maintain the upper hand. Taxes have been imposed and land reformed, deals done and embargoes issued, propaganda spread and wars waged. The effort has been unceasing, and despite appearances, it still is. The fact that so few of us are aware of it is symptomatic of the political sensitivity of the issue. No government, including our own,

has ever wanted to admit its dependency on others for its sustenance. Put it down to the siege mentality: the fear of starvation that has haunted cities through history.

We may no longer live in walled citadels, but we rely just as much on those who feed us as any ancient city-dweller did – arguably more so, since the cities we inhabit today are mostly sprawling conurbations on a scale that would have been unthinkable even a century ago. The ability to preserve food, as well as transport it long distances, has freed cities from the constraints of geography, making it possible for the first time to build them in such unlikely spots as the Dubai desert, or above the Arctic Circle. Whether or not one considers such settlements to be the ultimate in urban hubris, they are far from being the only ones to rely on imported food. Most cities today do precisely that, having long outgrown their local farm belts. London has imported the bulk of its food for centuries, and the modern city is fed by a global hinterland with a combined area more than a hundred times larger than the city itself – roughly equivalent in size to all the productive farmland in the UK.<sup>8</sup>

Meanwhile, the countryside we like to imagine just beyond our urban borders is a carefully sustained fantasy. For centuries, city-dwellers have seen nature through a one-way telescope, moulding its image to fit their urban sensibilities. The pastoral tradition, with its hedgerows and its meadows full of fluffy sheep, is part of that tendency, as is the Romantic vision of nature, all soaring peaks, noble firs and plunging gorges. Neither bears any relation to the sort of landscape capable of feeding a modern metropolis. Fields of corn and soya stretching as far as the eye can see, plastic polytunnels so vast they can be seen from space, industrial sheds and feed lots full of factory-farmed animals – these are the rural hinterlands of modernity. Our idealised and industrialised versions of ‘countryside’ may be antithetical, but both are products of urban civilisation.

They are the Jekyll and Hyde of the natural world as modified by man.

Cities have always moulded nature in their image, but in the past their impact was limited by their size. Back in 1800, just 3 per cent of the world's population lived in towns with 5,000 inhabitants or more; in 1950 that figure was still less than a third.<sup>9</sup> But in the past 50 years, the situation has been changing far more rapidly. Sometime in 2006, the global population became predominantly urban for the first time, and by 2050, the UN predicts the figure will be 80 per cent. That means *three billion* more people will be living in cities in 40 years' time. With cities already consuming an estimated 75 per cent of the world's food and energy resources, it doesn't take a mathematical genius to see that pretty soon the sums won't add up.

Part of the problem is what city-dwellers like to eat. Although meat was always the staple food of hunter-gatherers and tribal herdsman, in most societies it has been the preserve of the rich; its presence in the diet a sign of prosperity when the vast majority subsisted on grain and vegetables. For centuries, rates of global consumption have been a case of 'the West and the rest', with Americans recently topping the tables at a gut-clenching 124 kg per head per year. But now it seems that the rest are catching up. According to the United Nations Food and Agriculture Organization (FAO), the world is in the grip of a 'livestock revolution', with global consumption rising fast, particularly in the developing world, where diets have traditionally been vegetarian.<sup>10</sup> By 2030, the UN predicts, two thirds of worldwide meat and milk supplies will be consumed by developing nations, and by 2050, global meat consumption will have doubled.<sup>11</sup>

What lies behind the world's increasing carnivorousness? The reasons are many and complex, but in the end they come back to our animal natures. Whether or not we are vegetarians by choice, we are omnivores by

nature, and meat, quite simply, is the most privileged food we can eat. Although some religions, notably Hinduism and Jainism, eschew it, most humans who have forgone meat in the past have done so mainly due to lack of opportunity. Now, however, urbanisation, industrialisation and greater prosperity are creating an appetite in many countries for the sort of meat-based diet we have long taken for granted in the West. The most startling changes are taking place in China, where 400 million people are expected to urbanise in the next 25 years. For centuries, the typical Chinese diet has consisted of rice and vegetables, with the occasional morsel of meat or fish. But as the Chinese abandon the countryside, it seems they are abandoning their rural diets too. In 1962, the average Chinese person was eating just 4 kg of meat per year; by 2005 that figure was 60 kg and rising fast.<sup>12</sup> The inexorable rise of burgher and burger go hand in hand.

What, you might ask, is wrong with that? If we in the West have long enjoyed a meat-based diet, why shouldn't the Chinese – and anyone else who wants to – enjoy the same? The problem is that meat is a very environmentally costly food to produce. Most animals we consume today are fed on grain rather than grass, with one third of the world's crop going to feed animals, not people.<sup>13</sup> When you consider that it takes an estimated 11 times as much grain to feed a man if it passes through a cow first, that is hardly an efficient use of resources.<sup>14</sup> It also takes a staggering *thousand* times more water to produce a kilo of beef than of wheat, which, given that fresh water is in increasingly short supply worldwide, is not good news either. According to the UN, animal farming now accounts for a fifth of global greenhouse gas emissions, with forest clearances and methane emitted by cattle high on the list of contributors. Since climate change is a key driver of water shortages, our growing taste for meat is doubly damaging.



The impact of China's urbanisation can already be felt globally. With much of its land mass covered by mountain and desert, China has always struggled to feed itself, and as its population urbanises, it is fast becoming dependent on land-rich countries such as Brazil for its food. China is already the world's largest importer of grain and soya, and its demand is growing exponentially. In the 10 years to 2005, its soya imports from Brazil increased more than a hundredfold, and in 2006, the Brazilian government agreed to add another 90 million hectares to the 63 million already in production.<sup>15</sup> Needless to say, the extra land that is to go under the plough isn't any old scrubland nobody cares about. It is Amazonian rainforest, one of the richest and most ancient natural habitats on earth.

If the global future is urban, as every indication suggests it is, we need to take an urgent look at what that means. Until now, cities have existed largely on their own terms, commanding resources and consuming them more or less at will. That is going to have to change. The feeding of cities has been arguably the greatest force shaping civilisation, and it still is. In order to understand cities properly, we need to look at them through food. That, in essence, is what this book does. It suggests a new way of thinking about cities, not as autonomous, isolated entities, but as organic ones, bound by their appetites to the natural world. We need to put away our one-way telescopes and think holistically: use food to take a fresh look at how we build cities, feed them and dwell in them. In order to do that, we have to understand how we got here in the first place. We need to go back to a time before cities even existed; to a time when it was grain, and not meat, that held everyone's attention.

## A New Food



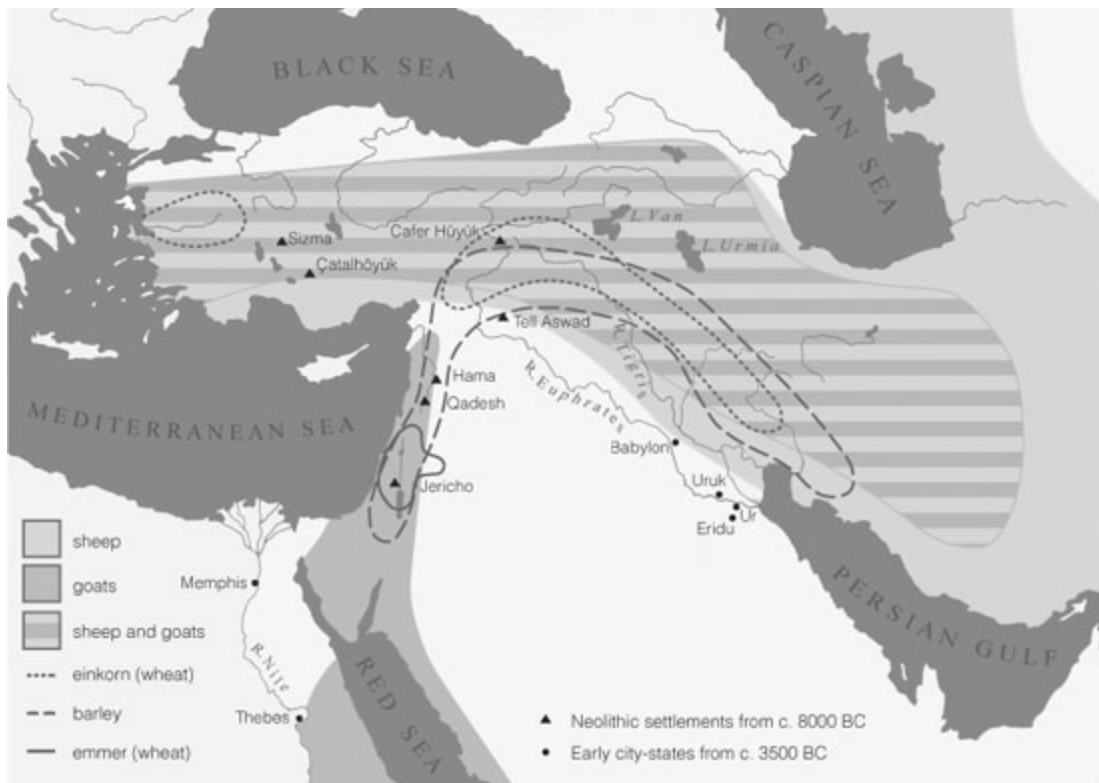
Corn is a necessary; silver only a superfluity.

Adam Smith<sup>16</sup>

The origins of agriculture are obscure, but what can be said with some degree of certainty is that before farming came along, there were no cities. Half a million years before grain came on the menu, our ancestors were nomadic hunter-gatherers who spent their lives tracking the annual migrations of the beasts that formed the basis of their diet. Men had learned to shape the natural world with fire, using it to burn clearings in the forest to improve grazing for animals, and presumably to ward off predators too. Fire also helped our ancestors to survive in inhospitable habitats, such as Europe during the last Ice Age; and it must have provided at least some comfort in an otherwise bleak existence (one presumes woolly mammoth tasted better roast than raw). But despite man's command over fire, his life was still essentially peripatetic. Permanent settlements were about as much use to him as they were to the animals he hunted.

Around 12,000 years ago, all that began to change. As the last Ice Age retreated northwards, it left behind it a swathe of land so rich in natural foods that it has been dubbed 'the Fertile Crescent'. Running northwards from the Nile Delta, along the eastern seaboard of the Mediterranean as far as southern Anatolia (modern Turkey) and then southwards again through Mesopotamia (Iraq), the territory blossomed into an arcadia of oak forests and wild grasslands (the ancestors of wheat and barley) grazed by the forebears of the modern sheep and goat. The land was bursting with good things to eat, although it may not have seemed that way to its human inhabitants. To people used to a meat-based diet, the idea of eating wild grasses can't have been too appealing. But the growing pressure of

population, together with the migration of larger animals northwards, probably forced their hand.



### The Fertile Crescent.

The first attempts of early farmers to harvest wild grain must have been frustrating, to put it mildly. The ears had to be gathered at the exact moment of ripening, or they would burst, scattering their seed and leaving nothing but an inedible husk behind. Pioneer harvesters probably set up temporary camps next to the fields in order to make sure that they were there at the critical moment; a practice that over the course of millennia led to the establishment of settled villages, such as those found in Palestine from around 10,000 BC. These villages, consisting of groups of circular stone-walled huts, suggest that early village life combined hunting and herding with the intensive gathering of wild grain, which would be laboriously processed by winnowing, threshing and stone-grinding, to make the

world's first attempt at bread – or its first mashed-up grain paste, at any rate.<sup>17</sup>

The poor state of the villagers' teeth suggests that this earliest of processed foods made somewhat challenging eating – yet its discovery was to prove pivotal. For the first time in history, here was a food (albeit not a very palatable one) that could be gathered and stored in large enough quantities to allow at least some people, some of the time, to live in permanent settlements. Grain, in other words, was the means by which the land could be made to yield a food surplus – one which over the course of two millennia became increasingly secure, as the intensive gathering of wild grasses evolved into the conscious management of crops, through the saving and scattering of seed: until it became, in other words, what we would now describe as farming.

## The First Cities

Jericho was an early settlement that characterised this period of transition from rural to urban life. Founded beside an oasis of the River Jordan in Palestine around 8000 BC, its inhabitants fed themselves partly through hunting, and partly through the intensive gathering of wild seeds, which they ground up to make flour. Life in Jericho was seasonal: the town was fully occupied during the harvest, but at other times its inhabitants would abandon it to go foraging in the countryside. The biblical account of Jericho's downfall, which refers to it being 'shut up' by divine intervention prior to Joshua's destruction of its walls, alludes to its heavy dependence on its rural links.<sup>18</sup> Without being able to lay aside emergency reserves of grain, being cut off from its food supply was fatal. Nobody is quite sure what finally did for Jericho, but whether earthquake,

famine, or the playing of magic trumpets spelt its end, the event took place sometime around the late fourteenth or thirteenth century BC, by which time the town had survived for some 6,500 years. Not bad for a semi-rural mixed farming community.

Whether or not settlements such as Jericho count as cities is a matter of debate among archaeologists. The consensus is that they don't, because they fail to display the division of labour characteristic of urbanity. Nevertheless, Çatalhöyük in Anatolia, dating from about 7000 BC, at least marks the beginnings of urban civilisation. Çatalhöyük's many decorated shrines and elaborate craftwork suggest it had a rich cultural and religious life, indicating that having a stable, reasonably predictable food source gave people the freedom to indulge in non-essential creative pursuits: the characteristic activities of urban man.

Uruk, founded by the Sumerians in southern Mesopotamia around 3500 BC, is the first settlement that even the strictest of archaeologists agree was a proper city. Along with its neighbours Ur, Larsa and Nippur, it had what is now considered to be the *sine qua non* of fully fledged urbanism: zoning. Not the most exciting sounding attribute perhaps, but critical to the way the city was run. Uruk can claim to be the world's first true city, not because of its magnificent temples and monuments, but because its citizens were employed in specialised tasks, including the running of a civic administration.<sup>19</sup> To judge from its records, the latter was devoted almost entirely to managing the agricultural hinterland, and many experts believe it was the complexity of this task that led the Sumerians to invent writing.

In many ways, the location of this first attempt at full-blown urbanity was far from ideal. The land's fertility relied on the annual flooding of the Tigris and Euphrates rivers, which although rich in minerals from the northern hills

were also highly unpredictable. The spring floods came too late for the growing season, so the floodwater had to be stored for later use. The city solved this problem by building a series of massive levees – the first municipal public works ever undertaken – to contain the river, and sophisticated irrigation systems to distribute the water evenly between outlying farms. The earthworks required constant upkeep and a massive investment of time and effort, but they were the means by which the flood-ravaged semi-desert was transformed into a blossoming oasis. Date palms flourished on the levees, along with a range of vegetables and legumes to keep any modern chef happy: chickpeas, lentils and beans; onions, garlic and leeks; cucumbers, cress, mustard and lettuce; dates, figs and grapes. Hardier crops such as wheat, barley and sesame grew further afield in irrigated paddocks.<sup>20</sup>

By moulding the natural world to suit their needs, Sumerian cities established the basic ground rules of urban civilisation. Their municipal market gardens were the world's first artificial landscapes, showing how nature might be modified to serve urban man. City and country combined to form a single entity, the city-state, and their mutual dependence, so clear in the ancient world and so obscure in ours, has underpinned urban existence ever since.

## Man and Grain

Nobody in the ancient world ever took their food for granted. The fact that our words 'culture' and 'cultivate' share the same stem (the Roman *cultus*) tells its own story. Cultivation and civilisation in the Graeco-Roman world were inextricably linked. The ancient Greek word *sperma* referred to the seed of both man and grain, and the two

were bound together in reality and myth. To Homer, man was, simply, 'bread-eater': a creature whom agriculture had transformed from a savage beast into a cultured, thinking being.

The bond between man and grain dominated life in the ancient city, with festivals that mirrored the agricultural calendar. Every year at harvest time, Athenians would decamp to Eleusis (the mythical 'original fields' where the earth goddess Demeter was said to have first taught man to cultivate) to celebrate the Eleusinia, a nine-day-long ritual of ceremony, fasting and feasting. Every four years the festival included inter-regional games, a sort of agrarian Olympics at which the victors were given not medals, but sacred ears of corn to take home to sow. Agrarian rites were also performed in the city. The Thesmophoria was a ritual in which women buried pig carcasses to ferment over the summer, returning in autumn for a three-day fast, after which they would mix the putrid remains with new seed to create a 'sacred compost' for the following year's sowing.<sup>21</sup> The importance of the ritual can be gauged from the fact that it took place on the Pnyx Hill, right under the noses of the all-male Athenian assembly. Women took part in similar fertility rites all over the ancient world. The figure of the Earth Mother was common to many archaic cultures, representing the female embodiment of the earth's mysterious power to nurture life. But the bounty of the earth could never be taken for granted. The success of the harvest was the gift of the gods, who must be appeased by ritual sacrifice. Death was necessary to bring forth new life; blood spilt to make the soil fertile.

For the Greeks and Romans, the bond between city and country would take on greater significance as their empires spread. With new cities to be founded in distant territories, choosing the right sites, and ensuring their capacity to support life, was vital. Sites for new Roman cities were chosen by augurs, who made careful observations of