HUNGERING FOR PEACE

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Contents

Summary

With the development of agriculture came the growth of towns and villages, the concept of "land ownership," and a wide degree of social disparity with resulting hunger, violence and war. Another kind of violence, perpetrated by the massive distribution of unhealthy food and the concomitant destruction of the soil threatens the well-being of even the most affluent people of the world. Peace will only be achieved when a sufficient supply of healthy food is available to all the world's people.

1. Abundance and Scarcity: How Did Things Get This Way?

1.1 Jeremy's Breakfast

"I don't want waffles! I want Krispie Cocoa Crunch!"
"But look, Jeremy, I put your favorite raspberry syrup on them and lots and lots of yummy margarine. Just like you like them."
"No waffles! Krispie Cocoa Crunch!"
"Okay, Sweetie."

Mother tosses the raspberry syrup-laden waffles into the trash, takes the brightly colored cereal box from the cupboard and gets the vitamin D-fortified, pasteurized, homogenized, low-fat milk from the refrigerator, pouring it over the little round cocoa-colored balls.

"No, No, I want chocolate milk on my cereal."
"But Jeremy, I don't think you need more chocolate on this cereal."
"Chocolate Milk! Chocolate milk!
"Okay, okay. I'm going to be late for work and you're going to be late for pre-school if you don't hurry up and eat your breakfast."
Mother strains the white milk off the cereal, letting it pour down the drain and covers the cereal with chocolate milk. Relieved she watches Jeremy stuffing the cereal into his pudgy little face as she packs his lunch of a plastic container of sweetened applesauce, pizza-flavored crackers and "cheese," and some sandwich cookies for dessert, the kind with the double filling. She throws in a bottle of Sunny Day, "Sort of like orange juice," the label brags, "only kids love it."

1.2 Konika's Story

Konika woke before the first rays of sunlight penetrated the jute walls of her hut. Was it the loud growling in her stomach or the quiet whimpering of her two-year-old daughter, Marjina, that awakened her? She did not know.

She reached out for the baby, pulling her onto her own straw mat and tried to soothe her back to sleep. There was no point in either of them facing the day any sooner than they had to. This would just be another day of struggling to find something to eat, another day with hunger's constant companions – the headache, the nausea, the confusion. Konika hoped and prayed that it was not as bad for the little one but the baby's stick-like limbs and swollen belly said otherwise. If only her milk had not dried up; if only she could at least give her child that much.

Her husband, Mojibur had already left on his journey to the neighboring village of Rangpur where he hoped to get some work as a day laborer. If he was lucky enough to find work he would earn about 40 taka (65 cents) for his days work – enough to buy a little rice. But work is as scarce as food in Bangladesh during the Monga (hungry season) of October and November. And this year, following the devastating summer floods was the worst Monga in 30 years. Even the price of rice had gone up. Soon the

Monga would be over and the winter harvest would bring some work, some relief. But Mojibur had already borrowed against his future wages as had all the men in his village. Konika thought about all of this and wondered whether it would ever be any better. Soon she would have to rise and scavenge for wild plants and leaves to boil with the tiny bit of rice that was left in the jar. This she would feed to little Marjina, saving some for Mojibur and allowing herself but one spoonful. She pulled the baby closer to her and gently stroked her bald head. They dozed for a little while, temporarily oblivious to their suffering.

1.3 What is Man's Natural Diet? A Brief History of Man's Eating Habits

While the pursuit of food has never ceased to be a major occupation, if we take a look at how early man ate and how the western diet evolved into what it is today, we will see how that pursuit has changed from wandering and gathering to tilling and harvesting to blindly purchasing from a huge array of processed products. We will see how agriculture turned the earth into a commodity and our food supply into a cause for war, a status symbol, and, ultimately, into a powerful and insidious industry.

1.3.1 From Hunter-Gatherer to Agriculturalist

Evidence indicates that primitive man ate much the same way as our relatives the great apes do, roaming through the woods or jungles, foraging for fruit, nuts, and berries and eating the occasional handful of creepy, crawly things. So how did we arrive at our present-day eating habits, so far removed from the way things were?

It was reportedly about 500,000 years ago (some experts say more like 250,000) that man first taught himself to build a hearth and use fire to cook his food. This was the first major deviation from the way in which other animals eat. At first he just dropped the food into the hot embers. Over the ages, variations on this original technique developed, such as grilling food above the flames, spit roasting, and stewing. Other than that, not much happened on the culinary scene for the next several hundred thousand years.

Although primitive tools such as spears and sling shots gave man enough of an advantage over other animals that he could hunt and eat game on a somewhat regular basis, archeological evidence indicates that the largest component of the hunter-gatherer diet was plant food. Nuts, berries, edible roots, a wide variety (sometimes hundreds) of different kinds of plants, and meat when it was available – that is how man ate for hundreds of thousands of years. And he was actually quite healthy. Accidents were apparently the main cause of death among those who survived birth and early childhood. The bones and organs of early man, like those of today's primitive peoples, were comparatively free of the degenerative diseases that now plague civilized man.

Sometime between 18,000 and 10,000 BC inhabitants of the Middle East started to herd and breed animals and use these "domesticated" animals as an easily accessible source of food. Deer and antelope were among the earliest animals to be herded but other species proved to be better suited for domestication. The practice of herding animals took several thousand years to spread over the continents of Europe and Asia. By 5,000 B.C. herds of sheep, pigs and goats could be found from China to Rome and Greece.

About 1,000 years later the Sumerians learned how to churn milk into butter and how to make cheese. Cows, who had long been used as draught animals, became highly valued for their capacity to produce an abundant supply of this precious liquid. The earliest raising of poultry may have been the fatted geese of Egypt which were reportedly being force-fed to make plump, juicy roasters as early as 2,500 B.C. In the meantime, other very significant changes in the way man procured his food were taking place.

Possibly the single development that has had the greatest influence on the process of civilization was man's realization that he could gather the seeds of certain foods, plant them, and harvest a new supply of food in the location of his choice. This awareness initiated what we know as the Agricultural Revolution approximately 10,000 years before the birth of Christ.

The changeover from hunter-gather to agriculturist was not, by any means, an overnight occurrence. While man was learning to plant crops and to domesticate animals he continued to forage and hunt in order to supply himself with enough food. Many people are under the impression that the people in the hunter-gatherer societies lived a life of constant struggle, with virtually every waking hour spent in the quest for food. In fact, studies of present day hunter-gatherer societies indicate that the change to a farming society actually increased the amount of time spent in food procurement and that even modern, small-scale farmers probably spend more time at this occupation than did primitive man. The Mbuti tribe in Zaire, for example only spend a small portion of their day in doing chores, including food procurement, since food and other necessities of life are plentiful.

Perhaps it was the security of being able to stay in one place, or it may have been the greater demands of an increasing population that made the agricultural lifestyle seem appealing despite its increased claim on man's time. In fact, this lifestyle changed virtually everything about man's existence and the rate of change accelerated quite rapidly from that point on. Permanent settlements grew up around the fields. Man began to claim ownership of the land. Social classes, organized warfare and the need for government developed. There was rapid growth in population. Specialization of work began, with some men continuing to produce the food supply while others became builders, artisans, merchants, soldiers, teachers, philosophers and bakers.

It was the capacity to raise crops that made grains such an important part of man's diet. Although the hunter-gatherer societies had long been chewing away at the gristly grains (probably as they roamed the terrain looking for tastier fare), the more settled agricultural lifestyle gave rise to culinary inventiveness. People learned to use stones to grind the grain into a powder, mix it with water and bake it into bread. The raising of crops of grain, and later the invention of rotary mills to grind the grain, as well as the ability to control fermentation eventually resulted in bread as we know it, and the capacity to mass produce it. By the time of Christ there were reportedly several hundred bakeries in Rome with a total output of about half a million loaves per day]

The development of agriculture in various parts of the world seems to have taken place over a relatively short (3,000 – 5,000 year) period. But different plants thrived in different climates and therefore, became the prevalent crops in the various regions of the

world; rice in the Far East; barley, oats and root vegetables in Western Europe; a wide variety of fruits and vegetables including olives and grapes in the Mediterranean; corn, beans, tomatoes and potatoes in Central and South America. Tools for cultivating became more and more sophisticated and, despite a host of new problems that accompanied this Agricultural Revolution, there was more food readily available than ever before.

In most cultivated regions of the world there was still a growing season and a non-growing season. Whereas previously nomadic people migrated to warmer climates in the cold months and cooler locations during the warm weather season, the agricultural lifestyle confined man to one location around which his entire existence revolved. To protect himself against starvation during the non-growing season, man had to develop effective ways of preserving food. Around 8,000 BCE the Egyptians developed the first flour mills, using huge stone rollers to crush and grind the grain, thereby allowing them to store and use this important dietary component as needed. Salting, pickling and drying techniques were used to extend the shelf-life of meats, fish, and vegetables. Salt became a valuable commodity for both flavoring and preserving foods as early as 500 BCE. Merchants transported this and other valuable spices between Asia, where they originated, and the West, where they were in great demand. But preservation for the long, cold winter months was not the only food procurement problem man now faced.

Crops are subject to disease and pestilence. Creating a condition in which one crop monopolizes an area of land also creates an ideal situation for the proliferation of the weeds, viruses and insects that prefer the same growing conditions or that thrive on that plant. This process of planting a large area in one crop has been termed ”selecting for.“ When man selects for the plants he needs or desires for his sustenance, he unintentionally selects for the organisms that live on those plants, resulting in plagues of biblical proportion upon the fields.

Additionally, the soil in a farming culture is subject to erosion and degeneration. In the hunter-gatherer society a large geographical area was minimally affected by man’s quest for food, while the farming lifestyle caused a smaller area of land to be much more heavily impacted. It did not take long for man to realize that he could not farm the same piece of land year after year and expect the same yield. The easiest and seemingly most logical solution to the inability of the land to continue to support a crop would be to move the crop to another piece of land and that is exactly what the early agriculturists did. It’s not difficult to understand how, over the centuries, farmland became a more and more valuable commodity.

To deplete the soil is to deplete a vital life source. At some point, man began to realize that he could not continue to do this indefinitely. He developed conservation techniques such as crop rotation to let the soil rest, intercropping (the practice of planting two crops together which complement each other in regards to what they add to the soil and what they extract from it), and fertilization. Unfortunately, man’s immediate needs and desires exert a stronger pull than does his concern for the future. His impatience often leads him to choose the fastest or seemingly easiest solution. A combination of increasing need, brought on by continuous population growth, and ever-present greed,

made the acquisition of more and more land a frequent cause for war. His abandonment and blatant disregard for the soil caused problems that we still struggle with today.

Another difficulty that agriculturists had to contend with is the fact that most crops cannot grow in dry earth. Lack of rainfall can devastate both plants and animals and, with many people depending on the same source of food, the agricultural lifestyle holds the potential for cataclysmic droughts. In the Old Testament story of Joseph, for example, we are told that the whole known world around Egypt suffered a seven year famine. [Genesis 41:56-57]

Farmers had to learn to keep their cropland hydrated. In parts of the world where this was a problem, various, often ingenious, systems of irrigation were developed. The earliest civilizations probably arose on irrigated land since this land could remain productive longer than farmland that relied entirely on rainfall.

The Egyptians expanded their growing area by redirecting water from the Nile River. On the other side of the world the Incas were developing their own unique systems. The irrigation systems constructed by the Incas to water the deep, narrow valleys of the Andes were almost identical to those of ancient Mesopotamia. And these were not simple systems that would just naturally have been alike. Successful water conduction systems such as these require keen knowledge of hydraulics and well developed design skills, not to mention constant upkeep.
Conversely, some of the ancient agriculturists found it necessary to protect their crops from *too much* water resulting from periodic flooding of the land. Some very effective methods of doing this were developed by so-called primitive cultures and destroyed, or allowed to fall into neglect, when their lands were conquered by the Europeans. A number of these systems are now being re-activated by modern agriculture professionals who have realized their value. In the ancient kingdom of present-day Mexico called Teotichuacan, fruits, grains and vegetables were grown on elevated beds surrounded by waterways that drained into man-made canals. The raised beds not only insured good crops but also provided an easily accessible supply of fish that thrived in the waterways and rich fertilizer when the canals were dredged each year. In the shallow waters of the huge, sprawling lakes in the area, reed-woven baskets, eight foot in diameter, were filled with earth, anchored to the lake bottoms and made into “floating gardens.” These unique agricultural systems apparently supplied produce to a quarter of a million Aztec citizens.

Although it was a giant step in our social evolution, there have obviously been some significant negative aspects to the development of agriculture. From the standpoint of security, man’s food supply became somewhat more dependable, (except in times of natural disaster) but, along with the valuable croplands and the permanent settlements that grew up around them came the threat of invasion and plunder. In addition, the specialization of work meant that those people outside of the farming profession had to depend on others to supply their food, and lack of self-sufficiency breeds anxiety. From an ecological standpoint, forests have been cleared, soil has been depleted and eco-systems have been permanently altered as a result of the Agricultural Revolution. But what about the effect on man’s health and nutrition? To examine that issue, we must look at the dietary changes that accompanied this social development.

There is no doubt that the Agricultural Revolution increased the consumption of grains and decreased the variety of plant life in the diet, thereby providing fewer sources of the nutrients (especially the trace elements) needed by the human body.

The domestication of animals that coincided with the growing of crops made meat and, dairy products more available than did the unpredictable practice of hunting. So we can assume that the overall consumption of animal products increased. It is also archeologically evident that the agricultural lifestyle increased man's susceptibility to a wide variety of diseases such as tooth decay, malnutrition and infectious diseases. These developments were probably the result of a combination of factors including a less diverse diet; a heavier reliance on starchy foods; crowded, often unsanitary living conditions and the spread of organisms through the milk and meat of domesticated animals.

With the development of social classes not all of these agriculturally-induced threats affected all men equally. Even during the biblical seven-year famine, Joseph's wealthy father and brothers had the resources to buy the grain they needed from Egypt's stores. Throughout history crop failures and famines have had a much more devastating effect on the less economically fortunate, with those who have no land of their own often being hit the hardest as demand for their goods and services decreases. It has been observed that in most present day hunter-gather societies food is shared equally and all enjoy equal health. This was not so in the ancient agricultural community. As the gap between the landed and the landless grew ever wider, so did the gap between the sumptuousness of their diets. That does not necessarily mean that the diet of the wealthy was the diet of the healthy. During the Middle Ages, for example, the royalty and upper classes often suffered from diseases such as gout as a result of their sumptuous lifestyle. However, except in times of extreme natural disaster, the wealthy, landed gentry had plenty of food available, not so the poorer classes.

Land ownership, ever larger permanent settlements, governing bodies and laws, population growth, wars and epidemics– these were some of the societal developments resulting from the change to an agricultural lifestyle.

1.3.2 Food as A Status Symbol

Just as land and cattle became the measure of a man's wealth, the amount and varieties of food he was able to put on his table became symbols of his social status, with meat being the most revered symbol.

In many cultures meat has traditionally been more highly regarded than plant food. The Old Testament reports that even God was more pleased with Abel's offering of lamb than his brother Cain's offering of produce from the fields [Genesis 4:5-6]. In primitive societies hunting was strictly the man's domain and the successful hunter has traditionally been highly respected. Even though plants, usually gathered by women, often provided the majority of the food supply, the gathering of plant food has never carried the same prestige. Meat was already a highly valued commodity when man first embraced the practice of agriculture and its prestige did not diminish in this new age.

As some of the early farming settlements developed into huge cities housing the wealthy and powerful, the practice of holding large feasts or banquets came into vogue. Feasts were held for a number of reasons. There were religious feasts to honor the gods. Great festivals were held to celebrate victory in battle. And sometimes the wealthy governing class held feasts just to keep the masses of poor people happy so that they would not rebel. Incredibly elaborate banquets were held in Mesopotamia as early as 1800 BCE with thousands of different dishes served up along with spectacular entertainment.

At the ancient feasts of the Egyptians, Greeks and Romans the presentation of the food was often part of the entertainment with chefs creating spectacular, many-tiered food pyramids, featuring a wide variety of meats, vegetables, fruits and even exotic birds – plucked, cooked and then re-dressed in their feathered finery. It was not unknown for one of these elaborate structures to collapse, no doubt adding to the merriment of the guests who had been spending the entire day eating and drinking.

Such overly extravagant and shamefully wasteful culinary displays of wealth were also common in Europe during the Middle Ages. European banquets which provided food for everyone living in the manor, became so elaborate that many an ostentatious party-giver was thrown into financial ruin after a big bash. Consequently, Sumptuary Laws were passed, limiting the number of meat and fish dishes that could be served by persons of "lesser rank," in the course of one meal. But the sumptuary laws were largely ignored and European chefs continued to develop richer, more colorful and elaborate meals.

Vegetables, particularly root vegetables, were considered peasant fare and even dangerous. Although for the common people food was still simply a necessity of life for the European royal class and the landed gentry it had become both a status symbol and an art form.

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Biographical Sketch

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