

PROGRAM IN AGRARIAN STUDIES

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TITLE: HOLY COWS AND HOG HEAVEN

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SYNOPSIS: Preserving environmental, ethical, and economic integrity through production, processing, and marketing creates dignity and sacredness in food relationships, which in turn supports a nutritional plane high enough for vibrant health.

Does it matter if a chicken can express her chickenness, or a cow her cowness, or a carrot its carrotness? While such questions may sound like the inane meditations of an imbalanced Eastern guru in our decidedly Western Greco-Roman linear reductionist compartmentalized, fragmented disconnected individualistic systematized catechized parts-oriented culture, how we answer reveals our values and goals.

If the answer is no, then it shows that we view life as so much accidental inanimate molecular protoplasmic structure deserving any human manipulation our techno-glitzzy cleverness can imagine. This is the view espoused by the U.S. food culture, from production to the plate. Cattle farmers no longer raise cows; they are merely in the protein business.

Such a view disrespects and dishonors the phenotypical and physiological distinctiveness of living things. It relegates to inanimate industrial commodification all the mystery and wonder found in the biological world. We intuitively all understand that our own Maryness or Jimness or Rachelness or Billness must be encouraged in order to fully use our inherent gifts and talents. And yet our food culture pooh-poohs such a view toward everything living except humans. As if life and humanity are not related.

This schizophrenic reasoning justifies everything in our food system that violates what otherwise would be considered to be life-adulterating. Consider fecal particulate concentration camp animal abusive factory farming, for example. The swine industry is trying to isolate the stress gene in pig DNA in order to eliminate stress. Currently, these pigs cannibalize each other in their highly stressful confinement facilities. But if the stress gene could be eradicated, then these animals would not know they were being abused. If a pig is no more animate than plastic or copper faucets, of course, such industry objectives are laudable.

In fact, such objectives become natural outgrowths of saying No to the question of pigness mattering. This is why the question contains such a fundamental framework on which hangs all the outworkings of the food system.

Now, if the answer is Yes, then a whole host of other questions naturally flow. At Polyface Farm, our answer is yes. And while we may all disagree about the actual moral outworkings of such a view, at least this posits moral parameters around human cleverness. Currently, our industrial food paradigm contains zero moral parameters around human cleverness. But the problem with our species is that we are clever enough to overrun what we can morally, ethically, or emotionally metabolize.

The movie Jurassic Park illustrated this concept beautifully when, in the midst of the scientists' euphoria and the dinosaurs destruction of civilization, the reporter has the audacity to ask: But just because we can, should we? That pregnant question needs to be asked by each of us every morning.

Just because we can blast the stress gene out of pig DNA, should we? Just because we can eat air-freighted tomatoes from California in Maine in February, should we? Just because we can pour enough concrete and smelt enough rebar to build a house big enough to cram 15,000 turkeys inside, should we?

While we can discuss all day where to set moral boundaries around human cleverness, as soon as we agree that such limits exist we are in a whole different dimension than Wall Street and conventional dinner plate, USA. The truly symbiotic relationships in life occur at the confluence of East and West, technology and heritage, invention and tradition, science and faith. When either one ascends beyond balance, nature has a way of bringing equilibrium.

Whether you're an atheist evolutionist who believes natural form follows fatalistic function, or a strict 6-day, young earth creationist who believes God designed every living thing, the fact is that things are the way they are for a reason. A chicken has a beak and claws to scratch, peck, and dig. They aren't there to be cut off by industrial zombies.

An elephant is the size of an elephant by design, and a mouse is the size of a mouse by design. An elephant the size of a mouse would not be a very successful elephant, and a mouse the size of an elephant would not be a very successful mouse. But in our worship of amoral science and addiction to bigger, faster, and cheaper, we have exceeded biological function and created monsters: *camphylobacter*, *E. coli*, *salmonella*, *pfysteria*, *bovine spongiform encephalopathy*.

These words did not even exist in the normal lexicon a mere two decades ago, and today nature sends them roaring toward us crying ENOUGH! But why would we expect a food system still operating under a Conquistador mentality to listen? In the western scientific cult, nature does not speak.

Besides, to listen to nature is decidedly feminine. What macho farmer feels empowered if he comes into his beloveds embrace after a long day and to her idyllic question: Well, my big hunk, what did you do all day? he exclaims: Oh, dear, I made

the cows happy! Somehow, to a culture that idolizes pig iron under male thighs, such a days activity scarcely embodies the western notion of manliness. A much more manly response is: Oh, I ripped up 500 acres, killed 2 million earthworms, sprayed 20 pounds of lethal insecticide, and sent 500 tons of topsoil tumbling down the river. I am a man!

The spirit of nurturer, husbandman, caretaker, denotes values that do not show up on decidedly amoral balance sheets. And yet each of us knows that the most important things in life cannot be relegated to an accountant's spreadsheet. The value of a loving spouse, obedient child, health, mental acuity, a kiss who would trade these for a roomful of cash? And yet none of these most basic, most human needs, is expressed on a tax form or business budget.

That is why our culture universally agrees that a Tyson chicken factory is profitable. The accounting system does not record the suffering of the chickens. It does not record the lack of riboflavin and the skewed saturated vs. unsaturated fat ratios. It does not record the odors that drive the neighbors indoors when they'd rather be outside enjoying a Sunday afternoon barbecue. It does not record communities whose schools and social services cannot assimilate the constant influx of conflicting cultures that occur when businesses do not hire their neighbors. It does not record the cases of diarrhea and death from food borne mutated super-pathogens created by overuse of antibiotics. It does not record the human trauma that exists when farmers voluntarily place themselves as serfs under the control of powerful multinational corporations and all the farms decisions are outsourced to corporate boardrooms a thousand miles away.

How can a food system predicated on anti-life, give life? How can a food system that is inhuman yield good human nutrition? How can something as intimate as taking in food have integrity when everything up until it enters the mouth has been prostituted to interests who do not value the pigness of the pig? How can you have a marriage when the fiancé is blatantly disrespected until the wedding day?

If growing things faster, cheaper, and bigger were a noble goal, we would all aspire to be the fattest person in the room. Is it any wonder that a food system predicated on these simple values would produce a population traumatized by obesity? And is it any wonder that a food system predicated on cheap would create an agrarian class comprised of simple-minded dolts rather than the best and brightest? Our obsession with a cheap food policy has driven the A and B students off the farms and left us with rural brain drain. As a culture, we have entrusted our water resources, our landscapes, our food system, to the stereotypical redneck hillbilly trip-over-the-transmission-in-the-front yard Bubbas of America. Is it any wonder our farmers swallow the voodoo economics presented to them by Archer Daniels Midland?

A culture that disrespects and dishonors life and the farmer will inherently disrespect other cultures. Indeed, such a culture becomes an ogre in the world. And it

doesn't matter how many good intentions or sincerely held beliefs may spring from this ogres heart, they will all create a fundamentally western Conquistador agenda. It is how we treat the least of these, if you will, that cornerstones how we will treat the greatest of these.

A natural outgrowth of disrespecting the pigness of the pig is to disrespect the sacredness of food and our consummation with it: the act of eating. To enjoy this act without any knowledge, understanding, courtship, relationship or personal effort is tantamount to food adultery.

The question to ask, then, is this: What does a relationship food system look like? Or asked another way: What does a righteous and respectful food system look like? These are valid questions for anyone who wants to leave a better world for the next generation.

PRODUCTION

Natures Template Fundamentally, we use nature's design as a template, or pattern, to lay down over the domestic model so we can duplicate it as closely as possible. For example, birds follow herbivores and sanitize the vacated pasture. We follow the cows with Eggmobiles and the ranging chickens then eat out the fly larvae and spread the cow patties, incorporating the nutrients into the soil. Herbivores exhibit three characteristics worldwide: mobbing (for predator protection), moving (to new forage and away from yesterday's campsite), and eating only forage. They do not eat carrion, chicken manure, brains, spinal cords, dead cows, or grain. If we had never fed herbivores like carnivores, we would not need to solve a mad cow problem. Using modern electric fencing, we move the cows every day to a fresh salad bar to simulate the movement patterns and create forage rest periods. No feedlots at Polyface we finish on perennial prairie polycultures.

Increasing edge effect where the three great environments of open land, forest land, and riparian area intersect creates more diversified flora and fauna. This diversity creates stability in the landscape. Fencing uses topographical points to create homogeneity within pastures for more environmentally sensitive management.

Soil Fertility Nature builds soil utilizing two primary principles: putting down lignified carbon, and putting it on top of the ground (not plowing it in). Lignified carbon utilizes solar-produced plant material that has fully expressed its physiological distinctiveness. This feeds the soil with material that microbes and earthworms can decompose. In the winter, for example, we feed hay under roof and soak up the cattle manure and urine with wood chips, sawdust, straw, or junky hay. This builds an anaerobic bedding pack.

The hay gate can be raised as the pack builds. We add shelled corn to the bedding as it builds, which ferments. In the Spring, when the cows go back out to graze, we put pigs into the loafing sheds and they seek the fermented corn. The pigs use the plow on the end of their nose to turn the pack, injecting oxygen, and making aerobic compost. This is truly hog heaven, letting animals do the work and completely changing the economics. Pigs need no oil changes, spare parts, and what a retirement program when they are done, you eat them! The profit potential is size neutral because we haven't had to create enough volume to spread depreciable infrastructure over more units. Since pigs don't rot, rust, or depreciate, this large scale composting can be done on any scale and still be profitable. Grass Based Every species wants some salad. Herbivores, obviously, should eat only salad. Pigs can eat up to 50 percent, turkeys nearly 50 percent, chickens up to 20 percent. Green material ingestion is the key to all nutrition. This is quite different than free range, which is normally a dirt yard devoid of vegetation and rife with pathogenic activity. Utilizing high tech polyethylene electrified fencing, lightweight hoop structures, and space age electric fence energizers, turkeys and chickens can be moved frequently to lush, vegetative forage.

By frequently changing the paddock, we keep the poultry away from pathogens and moved onto highly palatable salad bars. This makes omega 3 and omega 6 fatty acids balanced and produces an egg that will reduce your cholesterol. They taste great too.

Marrying this high tech fencing with the chickenness of the chicken allows us to raise chickens on a commercial scale in a more chicken friendly, hygienic, environmental, and nutrient-dense way than a backyard homestead flock a century ago.

Multi-Species and Stacking Natural diversity necessitates a multi-tiered production system that mimics this fundamental principle. Mono-cropping and mono-speciation, especially in large buildings, could not be more naturally abnormal. When chickens move into solar-heated hoop houses in the winter, they have rabbits overhead to stimulate proteaceous bugs in the bedding. The chickens eliminate rabbit urine odors by aerating the bedding, creating a virulent decomposition medium which then creates pathogenic cul-de-sacs.

Turkeys graze under grapevines and orchard trees, debugging, sidedressing with nutrients, and mowing the forage. Pastured broilers housed in floorless field shelters move across the pasture on forage mowed short by cows. The young tender shoots taste like ice cream to these young chickens and they in turn yield poultry way higher in polyunsaturated fats and lower in saturated. And they spread their own manure, which grows more grass for the cows.

Stacking complementary enterprises creates synergistic income streams from the same land base and infrastructure. This ratchets up income per acre to create salaried opportunities for the next generation of farmers, a critical component of sustainable farming. This same principle includes equipment and buildings. Nothing destroys farms faster than highly capitalized single-purpose infrastructure because it enslaves the next generation emotionally and economically to the previous generations model.

Sensually Pleasurable Good farms are aesthetically and aromatically pleasant. If any component of the food system assaults the senses with displeasure, its not appropriate, period. If this one principle were applied in America, it would fundamentally change our food system.

Who wants to take a kindergarten class out to a Tyson chicken house or a confinement dairy building? Oh, we laud ourselves in being able to build methane digesters to supposedly generate energy in confinement dairies, as if there were some great environmental breakthrough. But what about the cows, the nutrition of the milk, the concrete, rebar and steel, the environmental degradation caused by a grain-based feeding system? In typical western disconnect, we continue relying on cleverness to solve cleverness-induced problems, rather than changing our thinking to a more righteous level and starting over. Instead of figuring out how to make methane from confinement dairies, we should be asking: Why should we have confinement dairies?

PROCESSING

On-farm or local Decentralized processing, rather than centralized mega-factories, is the single most efficacious way to create a bio-secure food system. The vulnerabilities of the American food system to either pathogenic proliferation or premeditated attack are concentrated at any level where food is centrally handled. Choke points are at the point of processing.

This includes making tomato soup from tomatoes and slaughtering beef animals or bottling milk. A century ago virtually all of this was done locally but with cheap fuel and cheap transportation came long distance food transportation came centralized processing. But even when Upton Sinclair wrote The Jungle exposing the horrors of the meatpacking industry, that industry only supplied less than half the meat consumed by the populace. Local, on-farm, and small-scale butchers were everywhere and clean.

But along came the Food Safety and Inspection Service to clean up the large industrial plants and over the last century, the regulations sincerely adopted to control large operations have virtually destroyed the vibrant local businesses that never needed it in the first place.

This is the single biggest impediment to a moral food system. Thousands of entrepreneurial farmers are ready and willing to access their neighbors with clean food,

but malicious, capricious government regulations preclude such local food commerce. This is why vegetables and fruit lead the organic movement. How much meat, milk and poultry do you see at the local farmers market? And yet animal protein accounts for 50 percent of the consumer dollar and dictates landscape practices on 90 percent of agricultural land including leased government land.

Obviously the most efficacious way to change the way agriculture impacts the landscape is to strike at the meat, poultry and dairy sector. Every time consumer advocates like Ralph Nader win legislation to protect consumers, it puts more barriers between farmers and eaters. We absolutely must free up farmers to access their neighbors with the food they produce.

Labor If a business cant hire its neighbors, its not socially responsible. It doesn't really matter why. When a business must truck in large numbers of noncommunity members to do its work, such a model inherently upsets community equilibrium. The community then shoulders the emotional and economic cost of assimilating these newcomers.

Today, too often these situations completely overwhelm and destroy the community. The processors receive tax deferments and all sorts of concessions to bring in jobs, but too often what they bring in doesn't employ the neighbors after all. The poultry capital of Harrisonburg, 30 miles north of our farm, is having to build a new school because 30 percent of the classroom space is now devoted to English as a Second Language (ESL) students. This is a direct societal subsidy to the poultry industry, and is one reason why cheap food is not really cheap.

MARKETING Local and bio-regional The shorter the distance between producer and plate, the greater the accountability in the food chain. This integrity cannot be duplicated with regulations, bureaucrats, or certification agencies. The best accountability comes through relationships.

Someone may ask: What about New York City? Everyone certainly can't have a relationship with a producer there. I would ask another question to start the discussion: Why have a New York City?

I dont have all the answers, but I do know this: substituting an industrial organic food system for an industrial chemical food system is not the answer. An empire by any other name is still an empire. Do we really need organic Twinkies? Do we really need to ship organic certified cut flowers refrigerated air freight from Lima, Peru to upscale boutiques in San Francisco? Just because a market exists for something, what makes it honorable to sell it?

The environmental footprint created by shipping nonorganic produce from California to Maine in February is exactly the same as it is for organic. A bioregionally sound food system demands seasonal menus, food preservation for off-season and well-utilized home kitchens. Farm health cannot be separated from household food health. By that I mean that we cannot have well-functioning farms and farmers without well-functioning consumers who know what is in season, eat accordingly, and lay things by accordingly. To put all the onus for a righteous food system on farmers is ludicrous.

Perhaps the biggest challenge facing the clean food movement today is how to preserve the holism of the production through the processing and then through the marketing. The clean food movement grew out of the beaded, bearded, braless hippie environmental movement that was a decidedly eastern backlash at western disconnects during the 1960s. It brought soul back to science.

It dared to ask why concrete and rebar was inherently wonderful just because it was big and strong and massive. The yearnings of the inner soul for meaning and righteous goals spawned a new awe and respect for nature. The question today is how to maintain that view through the marketing process. The clever wordspeak and adulteration in the organic supermarket is absolutely on par with calling irradiation cold pasteurization. The conventional marketing scheme is inherently disconnected and nonholistic. An organic supermarket is just as disconnected as a nonorganic one.

SUMMARY

A moral food system looks absolutely nothing like the current U.S. food system. It would be decentralized rather than centralized. Corn and beans would turn into diversified landscapes of plants and animals.

The average 1,500 miles between producer and plate, along with the 4 calories of energy required to get every calorie to the plate, would drastically drop. All animals would be pasture based and vegetable operations would have a livestock component. Cover crops would grow to full lignification before being incorporated into the soil.

Consumers would become as tuned into their food as they expect farmers to be. Betty Crocker would once again grace the kitchen table. Raw ingredients would replace irradiated amalgamated extruded reconstituted adulterated genetically prostituted supermarket pseudofood. Soil organic matter increases would quickly sequester all the carbon put into the atmosphere since the industrial revolution.

Rural communities would explode with balanced economic growth, turning dollars over within neighborhoods. Obesity would cease and hospitals would be begging for patrons. Doctors would be poor and farmers rich. Multi-national corporations would crumble like a house of cards while community canneries and cottage businesses flourished.

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Productivity would increase with the symbiotic and synergistic effects of complementary enterprises. Much more food environmentally produced would feed the world on a higher nutritional plane. And the U.S. would not be dumping genetically engineered junk on developing countries, force feeding their children Frankenfood.

The agrarian landscape affects, and is affected by, every other economic sector and cultural policy. While none of us individually can change the landscape, we can individually, daily, make moral food choices that change our culture one bite at a time. The goal is not to be defeated in a morass of guilt. After all, I like a Snickers bar every once in a while just like you. The simple goal is to be able to look back at the end of the week and know that we patronized a moral, sacred food system, a respected, honored farm and food habitat, more than we patronized one that couldn't care less if the pig expresses its pigness. My question is which side won and which side lost this week based on my food choices.

Voting with our food dollar, one bite at a time can preserve holy cows and hog heaven. And that's a righteous endeavor.