Children, Chores, Humility, and Health

"We need something for our young people to do" is a common refrain in adult circles today. Daily news reports about roving teenagers getting into mischief during the wee hours of the morning don't make any sense to me. Every time I see that a group of young people has caused some fracas at 2 a.m. I wonder, "Who has time and energy to be out cavorting at 2 a.m.?"

Our children went to bed at 9 or 10 p.m. and were grateful for the opportunity. Our apprentices and interns normally dismiss themselves from our company and head off to bed as soon after dark as they can get there.

That young people today, at least when they are not in school, spend the day lounging around, hanging out, and then go into the wee hours burning off excess energy is aberrant in the first degree. Add to that the pastime of playing video games, exercising only thumb muscles and fingertips, and folks, we have a situation that just ain't normal.

When the biggest thrill in life is becoming competent enough on the video game to achieve level five performance, what kind of environment are we creating for our future leaders? When I sit in airports and watch these testosterone-exuding boys with their shriveled shoulders and E.T.-looking fingers passing the time on their laptops, I realize that this is normal for them. This isn't happening because they are sitting in an airport trying to while away the time. This is actually how many, if not most, of their hours are spent—recreation, entertainment, and playing around.

Contrast that with historical normalcy. Here is a list of chores for young people since time immemorial:

1. Chopping, cutting, and gathering firewood. In the days before petroleum and electricity, every able-bodied person contributed to keeping the household warm during the

winter months. This wood accumulation required a knowledge of the forest and of what kind of wood burns well. Not all wood is created equal. Resinous woods like evergreens coat the inside of the chimney and unless mixed half and half with nonresinous will accumulate too much soot on the inside of the chimney or flue. This highly combustible residue can become a fire hazard. Whenever we cut down a pine tree, therefore, we want to look around for at least equal parts hardwoods to balance out the fuel for the fireplace or woodstove. Green wood cut from standing, living trees contains 30 percent or more water, and this moisture retards the fire because before the wood can burn it must evaporate the water.

A skilled wood gatherer knows to seek dead and dry wood for immediate burning but to stockpile the green wood for future burning. But all dead and downed wood is not equally dry. If the dead wood is up off the ground a little, it will be perfect. A standing snag is ideal most of the time. Sometimes it has already rotted and turned to powder—common in soft deciduous trees like poplar or red maple.

If the dead or downed wood is on the ground, it may be too rotten to burn. Burning wood is essentially an extremely fast rotting process: What soil microbes do over an extended period, a fire does in a short period. If the combustible carbon is already decomposed through the rotting process, nothing is left to burn.

All wood gives off about the same BTUs per pound, but different woods weigh different amounts per cubic foot. Heavy woods like white oak and hickory give off twice as much heat per cubic foot than light woods like poplar or white pine.

Gathering wood, then, requires a fair amount of knowledge to be done well. Beyond the knowledge is the skill to gather it efficiently. Obviously if we’re going to the forest to bring in firewood, we will take our tools like a chainsaw (modern), crosscut or bucksaw (premodern), or

ax (old). Or imagine the Native Americans who either used stone axes or built fires around big trees to fell them. That required yet another whole skill set—one that I don't possess.

But I do know how to run a chainsaw—a wonderful modern invention. I also know how to swing an ax, sharpen an ax, and replace the handle on an ax—all skills I developed as a youth. Once the wood is cut, it must be loaded into a vessel: trailer, pickup truck bed, hay wagon, whatever. It never ceases to amaze me when I go to the woods with our apprentices and interns how much I have to teach about efficiently gathering wood. First, we stack the branches with all the butts facing one way and uphill because the fluffy branch ends tend to build vertical height faster than the butts. If you stack the branches haphazardly, the pile gets too high too fast. By carefully placing the branches, we can get far more on the pile.

When we begin picking up the cut pieces of wood, we want to get the vessel as close to the wood as possible. No walking—pitch it into the vessel. If the piece is too big to throw, of course, then you may have to walk, but we want to keep backing the vessel into the cut wood to minimize walking. Obviously, if we pitch the wood to the vessel, we want to position our bodies between the vessel and the wood we're picking up. This way we can reduce the throw by the length of our bodies and our arms—usually a distance of nearly five feet.

By swiveling back and forth this way, we can load the wood twice as fast than if we're behind the pieces throwing them into the vessel. And three times as fast than if we're picking them up in our arms and carrying them over to the trailer. I know some people are reading this thinking, "Wow, that sounds like a lot of work. I'm glad I just turn on the thermostat and the heat starts."

But now we get to the point of the story: Few activities can yield more satisfaction in the heart of a young person than riding in on a big load of firewood. This chore offers communing

experiences with the forest, but not in a woo-woo cerebral academic kind of way. Rather, it's a visceral, healthy understanding of the forest's bounty, the diversity of its species, the different properties of each, the reality that some specimens died and some live until another day.

Some of my most satisfying experiences as a youth entailed gathering wood with Dad. Usually we would do this kind of work in the fall, the leaves turning brilliant colors, just enough nip in the air to invigorate the body. Perhaps my favorite work, still today, is working the woods. Few things are as satisfying as going into a jumbled-up mess, taking out the crooked trees, widow-makers (dead trees leaning up against their neighbors), dead trees fallen over, and walking out a couple of hours later with a beautiful order restored and excellent trees newly released (weeded) to grow better and healthier.

I consider it the ultimate multitasking. Not only have we reenergized the good trees and restored beauty and order, but we've accumulated our heating fuel at the same time. Whenever I throw that last piece of wood on the trailer, I like to take a few minutes, in the silence, and survey the site where I've worked. Branches neatly stacked will provide several years of housing for voles, chipmunks, and rabbits. Sometimes we chip them for livestock bedding. The good trees, standing straight and vigorous, reaching for the sky, will grow better now, unencumbered by the crooked, diseased, and scrub trees sapping soil and sun energy. What I could scarcely walk through two hours ago is now spacious, open, parklike, and organized.

The triumphant, exuberant spirit of our interns, riding in atop a trailer load of freshly gathered firewood, is testament to the deep personal satisfaction, the physical, emotional, and spiritual affirmation that such work engenders. This visceral, meaningful work makes the spirit soar with self-worth and accomplishment. This is the ultimate self-actualization. You won't find that at the end of a video game, no matter how many times you play.

I hope this examination helps illustrate the depth and breadth of historic youthful normalcy. Because generally gathering firewood is done with at least one other person. The social time, bonding, and camaraderie that is part of the process puts icing on the cake. Yes, it's work, but so is trying to figure out what to do with unruly youthful hormones at 2 a.m. Historically, normal youthful development entailed a meaningful contribution to the household. Work defines the individual. What is one of the first questions we ask when greeting new people? "What do you do?" That means, "What do you do for a living. What is your vocation? Your career? What defines you as a person?" Vocation clues us in to the person: engineer type, lawyer type, potter type, entrepreneur type, minister type, counselor type.

In the Jewish tradition, boys become men at twelve years old. Any reading of colonial American biographies reveals unheard-of intrepidity among teenagers. In fact, the term "teenager" did not occur until the Industrial Revolution, when meaningful societal contributions by this age class began to wane. Until then, they were young adults. Many of the Pony Express riders were teens. These guys knew how to ride a horse, handle a gun, think on their feet, spot danger, be dependable.

Accumulating the wood, gathering it from the woods, was generally a communal chore. The daily task also entailed splitting and bringing the wood into the house.

2. Splitting wood was necessary to keep heat in the home. Normally accomplished with an ax, this chore has its own skill set. Reading the end of a piece of wood requires experience and careful observation. As wood dries, the moisture from the ends evaporates faster than what is stuck inside. This rapid drying on the end creates checks, or cracks. When setting up the block of wood to split, therefore, reading these checks reveals the natural inclination of the piece to split. Leveraging those small cracks makes the splitting much easier.

3. After splitting, the wood had to be brought into the house to keep the firebox full. By this time, the connection between gathering and necessity is clear. No wood, no heat. I remember well during my teen years taking my morning pee in the upstairs bathroom and seeing the stream splatter onto ice in the toilet bowl. That definitely motivates you to get the fire going, bring in wood, gather wood—the whole seamless chain of events to maintain house comfort.

This chore taught me both personal responsibility and dependency. If I got cold, it wasn't anybody's fault but my own. If I neglected to bring in enough wood to get through the night, I was victim of my own negligence. I had to think ahead, plan, be aware of outside temperature that determined how much wood we would burn for the night. I had to take note of the kind of wood. If it was a fast-burning wood, I needed more volume than if it was slower-burning wood. I needed a combination of big pieces to hold the fire and little pieces to make enough surface area to keep burning. This was all my responsibility.

But ultimately, this whole process painted a daily reminder of my dependency on nature to supply heat. It didn't come from a pipe. I participated in the effort of growing trees, then it was up to the rain and the sun. Participating in this great work steers us toward dependency on our ecological womb. Breaking this historical responsibility and dependency may seem like a good thing for a while, but if we use that freed-up time to become self-absorbed, or become Hollywood celebrity addicts, are we really better off? For all our extrication from these chores, are we better people? Are we more responsible people? Are we more aware of our ecological dependence? I'm not saying it's sinful to heat with natural gas or electricity. I do believe, however, that we must put more effort into remembering our responsibilities and dependency on the environment even if we don't participate in these traditional activities.

Here's a little-known chore: **4. Keeping animal protein in the chicken yard once a week during the winter.** One of the first man-sized chores for farm boys was providing some dead critter for the laying flock to eat in the winter when the grasshoppers and crickets were dormant. Since chickens are omnivores, they need animal protein, and that's hard to come by during the cold winter months.

Consequently, young boys had the chore of acquiring something for the chickens. Usually a squirrel, skunk, possum, raccoon, rabbit—something small. This required shooting or trapping, and is one reason why handbooks for boys written during the 1800s and early 1900s were dominated by homemade trapping devices. Often these boys were not yet old enough to carry guns, so they had to be ingenious at acquiring varmints some other way.

Matching wits against these animals that scurried around the home at night occupied many a youthful discussion and evening whittling, refining, tweaking by firelight. It occupied conversations at social gatherings and formed the warp and woof of meaningful collaboration. And it was the perfect job for young people seeking wise elderly counsel—from adults who had passed this way before and trapped or shot their fair share of the winter chicken yard protein.

Now, dear people, please close your eyes and meditate on this chore for a while, comparing it to the raucous nonsocial totally aberrant youthful passion pitting finger responses against a handheld video screen. Which do you think will really prepare young people to take their place in societal leadership? Which process actually lays a foundation of cleverness, persistence, and self-actualization to offer us world leaders who are not peer-dependent and who can think through the nuances of a problem?

For urban young people, building and launching model rockets, building and launching soapbox derby cars, and a host of other craft-type activities help develop these traditional skills.

And they sure create great stories. How many times can you tell the story about hitting 100,000 in the Crazy Maniac Highway Destructo video game? But you can always tell the story about the crazy rocket that went sideways.

Here's a chore that predates me by about a decade: **5. Picking up cow dung from the barnyard.** When I was a youth, one of my old-timer neighbors told me about this chore that was one of the early rites of passage for young boys. Wheelbarrows have been around for a long time. Today they have pneumatic tires, but before that they had a simple metal wheel. Before the days of chemical fertilizer and agriculture experts telling farmers that manure wasn't even worth hauling to the field, farmers knew its benefits.

They didn't know all the scientific names for the various nutrients, the elements contained therein, or the enzymes saturated throughout, but they knew manure was magic. Always has been, always will be. For the record, although we know far more about manure than we did even a couple of decades ago, we still have much to learn. The more we know about nature, the more we know we don't know.

For centuries farmers tried to figure out how to be more resourceful with manure. In the days before electric fences and front-end loaders, manure spreaders and wood chippers, this required hand work. Gene Logsdon, in his wonderful book *Holy Shit*, explains the historic static barn manure pack. Created in the winter when the cows and sheep were not out on pastures as much, the barn manure and bedding pack was one of the only concentrations of nutrients on the typical farm. During the grazing season, the pastured animals spread their own manure but it was so widely distributed that its effects were not as noticeable. This bedding manure was so prized that farmers wanted to gather even the cow pats dropped outside during the night and place them

inside the barn under the protection of the roof and into absorptive contact with straw: what I call a carbonaceous diaper.

Hence the chore of going around with the wheelbarrow and a fork, gingerly picking up these outside cow pies and wheeling them into the barn where they could be covered with straw and accumulated until spring. While this may not have been a favorite chore, it did indicate a rite of passage, because a boy who could run that wheelbarrow around the barnyard was just around the corner from becoming a man. I remember well coaching our own children to use the wheelbarrow, watching as they tried to balance it and urging them on with "Yes, you can do it! You can do it!" When finally the day came that they could operate it proficiently, I passed the baton.

I remember as if it were yesterday the first time my son Daniel drove the tractor by himself. He was about eight years old and we needed to pick up a wagon load of hay bales in a large flat field. The thirteen-acre field was expansive, and since I was picking up the bales by hand, he needed to drive as slow as I could walk. The implement was a hay wagon, which is a fairly benign implement—not like a baler or mower.

Of course, Daniel had grown up around the tractor with me, so he knew where everything was: clutch, throttle, brake, gearshift, steering wheel. I put it in gear for him, let out the clutch, and then jumped off, leaving him standing in front of the seat holding on to the steering wheel. I began loading the hay bales and he drove expertly alongside, put-putting along in fine fashion. When we were finished, he stepped on the clutch to disengage the transmission and I jumped on the tractor to drive it to the barn. I'm sure insurance agents are flipping right out about now. Trust me, you don't know half of our stories.

That was a Saturday, and the next day at our church fellowship group Daniel beamed to everyone about what he had done. It was the only time he ever complained about homeschooling: "I wish I could go to a school tomorrow for show-and-tell." That was a rite of passage.

I remember when I was about the same age working with my dad. We were feeding a herd of cows in the winter and had the big dump truck full of hay bales. Dad needed to throw them off and I was his only crew. When you're feeding hay on a pasture, you want to put it out in a long line rather than a pile. This allows all the cows to get to the hay at once and it also reduces their tromping on it and wasting it. The easiest way to do this is to throw it off while the truck is moving.

So Dad put the truck in gear and let out the clutch, and I stood on the seat and steered. This 1951 International had a throttle on the dashboard, which meant you didn't have to push the gas pedal to make it go. We were on a long flat ridge. Dad put the truck in low first and then climbed into the back to throw off the hay. When we finished, he praised me for doing such a good job.

When our daughter Rachel was eight or nine years old, she began baking zucchini bread and pound cakes for our farm customers. Not only was she a truly gifted baker, but as a marketer, who could possibly refuse the cherubic face and expectant countenance of a child? "Yes, of course I'll buy one," the garden club ladies would say. And then the next week the patrons would come back and, crouching down to Rachel's height, gently pinch her cheek and gush, "Oh, my garden club ladies loved your pound cake at our luncheon. It was delicious."

What does that do for the personhood of a child? All of us crave affirmation, especially affirmation that genuinely recognizes our contribution to society. Being able to touch others in a

meaningful way with our gifts and talents creates reciprocal affirmation. And while I may insult some people, I submit that this affirmation has a different quality, a different intensity, than simply being praised for winning a game. Perhaps acting in a dramatic production comes closer. But when we create something that we can sensually experience, and that represents our ingenuity, the gratitude on the part of the recipient speaks to deeper levels of our personhood.

In her early teen years, Rachel's baking business expanded. Then she added a housecleaning business, and by her midteens she was employing. We homeschooled and never had a television in the house, which created time to pursue these entrepreneurial activities. Contrary to much popular opinion, I would suggest that this was the ultimate preparation for adulthood, rather than an adolescence of coddling and endless recreation.

Our son Daniel started a rabbit project when he was eight. Some friends moved to the city and their new lease restrictions excluded animals. Their three rabbits needed a new home and Daniel took them in. We built a portable rabbit shelter and he moved it around the yard, fertilizing and mowing. Knowing what rabbits are known for, we decided to add "RABBIT" to our farm offerings in the next season's product order blank. We assumed that not too many people ate rabbit, but hoped that enough would that Daniel would be able to sell some.

Within two weeks after the order blank went out, Daniel had orders for 150 rabbits. This was quite a tall order, even for rabbits. It launched his business and he gradually built it up to a sizable operation that recently has been commissioned to independent contractors on the farm.

I'm a big believer that children should have autonomous businesses. This teaches the value of a dollar, persistence, thrift, and good math skills. The earlier someone learns the difference between profit and loss, the better. I well remember Daniel going down to the farm store and purchasing half a ton of unmedicated rabbit pellets when he was about twelve years

old. His nose just cleared the counter and the guys would josh with him: "Only half a ton? Why don't you get a whole ton?"

Daniel would matter-of-factly respond, "I don't have enough money for a ton." How many adults have not learned that lesson? Both of our children hit twenty years old with $20,000 in the bank. I don't believe in allowances—nobody should be paid to breathe. This was not pay for chores. It was self-earned, saved income from their businesses and provided a wonderful nest egg for future pursuits. That, my friends, is liberating and launching.

Our grandson Travis was only about five years old the first time he went with me to raise and lower the tractor front-end loader for something I was doing in the field. All he had to do was work the joystick that operates the hydraulics to move the loader up and down. He watched me closely for instructions and did what he'd seen his daddy and I do many times. His triumphant smile over helping me do something I couldn't have done by myself oozed affirmation. He barely touched the ground for the next day, making sure everyone knew he had helped Grandpa. We were a team, there in the field, old geezer and kindergartner, working together to solve a common problem, sharing in the triumph of a physical, seeable, measurable job well done.

Recently I was in Washington State conducting a seminar, and a middle-aged lady told me her grow-up story. She said when she was a girl, when school dismissed for the summer, the apple orchards in the area would lease the school buses and print a picking schedule in fliers in the newspaper. The school buses would come through the city on a schedule, just like the ice cream truck, and if you were older than ten years old, you could get on the bus and ride out to the orchards and pick apples for the day. This gave young people spending money, physical

exercise, and affirmation as contributing members of society. At the end of the day, the buses would deliver them back home and they were richer than the money in their pockets.

Can you imagine such a reasonable activity occurring today? The insurance underwriter for the school district would go apoplectic that the buses were being used for something other than carting brains to school. Child labor laws would scream “Exploitation!” and criminalize even the notion of such an activity. I find it amazing that today that our culture thinks it’s sensible to put a sixteen-year-old behind the wheel of two thousand pounds of steel and send it hurtling down the expressway at seventy miles an hour, but if that same person pushes a lawnmower or operates a cordless drill, that power tool is too dangerous.

On our farm, we routinely have younger teens in the fifteen- to seventeen-year range wanting to come and work for the summer. Many are homeschooled and quite mature, eager to get on with their life’s objectives, which in this case means starting a viable agriculture endeavor. But although we used to take them, we don’t anymore due to overreaching occupational safety regulations that classify a cordless screwdriver as a power tool and therefore illegal for anyone under eighteen to operate.

The same teen who can’t legally operate a four-wheeler, or all-terrain vehicle (ATV, commonly known in the vernacular as Japanese Cow Ponies), in a farm lane workplace environment can operate a jacked-up F-250 pickup on a crowded urban expressway. By denying these opportunities to bring value to their own lives and the community around them, we’ve relegated our young adults to teenage foolishness. Then as a culture we walk around shaking our heads in bewilderment at these young people with retarded maturity. Never in life do people have as much energy as in their teens, and to criminalize leveraging it is certainly one of our nation’s greatest resource blunders.

Our culture now denies young people the very activities that build their self-worth and incorporate them as valuable members of society. Rather than seeing children as an asset, we now view them as a liability. If there is any expression of our society's aberrant behavior, it is certainly expressed in the "cost of children" analysis in the modern press. What happened to the day when they were considered a worthwhile asset?

Our societal paralysis to leverage youthful energy in a more meaningful way than soccer, ballet, and video games indicates profound imagination constipation. This protective timidity that denies our young people risk and self-actualization keeps them from attaining emotional, economic, and spiritual maturity.

Worse than being hurt on the job is growing up without a sense of self-worth. Gangs are a direct result of this societal abnormality. While I'm not naïve enough to believe that if we encouraged childhood work we wouldn't have gangs at all, I would argue that their proliferation has mirrored young people's eviction from visceral societal contribution.

Lest anyone think I'm proposing child labor, I also love to see children free to enjoy imaginative play. Our children grew up building dams in the creek, forts in the hay, forts in the firewood pile, forts in the woods. After reading *The Swiss Family Robinson*, Daniel and Rachel spent several days in the woods. Teresa and I weren't quite sure what they were doing, but we knew they were into a serious project. After three days, the children asked us to come and attack them—giving us clear directions on where to assault their stronghold first.

As Teresa and I approached along the designated path, Rachel and Daniel let loose with whooping and hollering, moving deftly from one booby trap to another, releasing a bag of sticks on us, then entangling us in string. When we finally made it through the hazards and arrived at their inner sanctum, we all had a wonderful laugh at their rendition of the classic book's story.

Compare that to spending all day in front of a video game trying to race a car around a track or decapitate the alien invaders. I am not a psychologist, but it seems to me that the video alternative is a far cry, as a personal development technique, from the forested fortress. The children tied, sawed, climbed, rolled, heaved, and built something with their own creativity. Video games confine creativity to someone else's software imagination. And we haven't even addressed the physical benefits of all that exercise—climbing up the trees to string twine and gathering armloads of sticks. Oh, and the site was half a mile from the house. They had to walk there and walk back. Precious memories.

My grandchildren's escapades are already epic. They have their flags and forts throughout the farm and barn, daily venturing forth to slay dragons and protect righteousness. Who needs amusement rides and Disney when every day, with a little sweat and imagination, you can create your own castles and story lines? When I ask Travis and Andrew, sometimes with Lauryn tagging along, what they are up to, they regale me with fantastical stories, crisp descriptions of how the "bad guys" came over that "hill right there and we . . . we ambushed them right there and . . . and . . ." Trust me, folks, this narrative can go on through chores if you have the time to let it unfold.

Although childhood active playtime is wonderful, so is work. One particularly poignant illustration of this occurred when Daniel was about ten years old. A neighbor boy a year younger wanted to build a fort below his house, so he enlisted Daniel's support in the project. Since diaperhood, Daniel had been going with me to build fence, and I routinely paced myself by not stopping for a drink until I had achieved some specific point in the project. He would ask for a drink and I'd say, "No, we're not going to get a drink until I finish setting this post."

He went over to the neighbors' to build the fort the first morning of the project, and about two hours later the boy's mother called our house: "What's wrong with your son? He won't let my son have a drink of water until they've finished the first wall." We laughed ourselves silly over old ten-year-old slave driver Daniel. But folks, that is the stuff of life. That is the stuff of maturity. Persistence and faithfulness. Can these be learned equally from entertainment or recreational venues? If we relegate our young people to only find accomplishment from entertainment or winning the athletic trophy, have we not shortchanged their understanding of human value?

I like a great ball game as much as anybody, but all game and no meaningful work creates an unbelievably jaundiced view of life and our role in it. And that brings me to the sixth chore in this discussion:

6. Gardening. As recently as 1946, nearly 50 percent of all produce grown in America came out of backyard gardens. Hoeing, pulling weeds, planting vegetables, and then canning, freezing, dehydrating, and fermenting accounted for significant family time and energy. Laying by was not an option; it was a necessity. That someone would enter the nonproductive off-season with an empty larder was simply unthinkable. And foolhardy.

With the proliferation of just-in-time inventorying and supermarkets with long warehouse stays and a global inventory chain, this historically normal domestic activity has been relegated to unnecessary status. Such food production, preparation, and processing simply gets in the way of extracurricular outside-the-home activities.

When a child plays a video game, if the race car wrecks, in a few seconds the game gives him a new one and he goes right on playing. If he's fighting alien invaders and his character gets his head bashed in, the machine replaces the stricken victim in a few seconds and the game goes

on. No one, at any other time in human history, has been able to replace their materials, their tools, even their playthings with such instant fabrication or resurrection.

Life is not like this at all. In real life, if you drive your car like a maniac and wrap it around a tree, you don't swagger away cavalierly from the catastrophe and receive a new car plopped down by the auto fairies in a few seconds. It's a real loss, with real consequences and real upheaval.

If your tomato plant dies because you failed to water it, you don't count to ten and watch a miraculous resurrection. Death is final. It's over. The hubris with which our young people enter life, living in this world of replacement and limitless instant gratification, engenders an arrogance toward life and ecology that is both scary and dangerous. No fear is the mantra of fools.

When we started our apprentice program at our farm I saw this illustrated daily. Though only thirteen at the time, Daniel had an awareness of danger, a situational awareness far superior to apprentices twice his age. He knew what happened if a tractor tire ran over something. He'd seen squashed buckets or bent metal. He knew what an errant tree falling could do. He was well aware that a random groundhog hole could dislodge a whole wagon load of hay and bury the stacker under a ton of bales. He knew how unpredictable—and violently strong—a cow kick could be in the corral, and where to position himself to not be the victim of such actions.

Apprentices twice his age were constantly putting themselves in dangerous positions. Not because they were foolhardy, but simply because they had not been in these situations and therefore had no clue about what could go wrong. Over the years, we've only had one apprentice we had to send home due to his inability to assess dangerous places. We actually feared for his life because he couldn't grasp the gravity of a given situation.

Knowing what to fear is the first step in knowing what to fix. I fear that we are bringing to our world a whole generation revved up on hubris, who think they have the world by the tail. Solomon, generally described as the wisest man who ever lived, said in the biblical book of Proverbs, “The fear of the Lord is the beginning of wisdom.” If this doesn’t denote appreciating the gravity of the situation, I don’t know what does.

The gardener fears weather pattern changes lack of water, soil loss, husbandry negligence. That so few in our generation have a visceral experience with any deprivation is why, in the face of mounting water shortages, soil erosion, atmospheric changes, and chemical toxicity most people can still drink their Coca-Cola, munch their nachos, and spend hours glued to sitcoms, oblivious to catastrophes building around them. The wise gardener studies his environment, watching for weeds, bugs, drought, flood, heat, cold, and soil changes.

Cultivating this habitat awareness and responding to its nuances allows the gardener to enter a world of mystery and grandeur. Ultimately all gardeners realize that their landscape depends on something much bigger than themselves. Seasonal cycles, frost dates, degree-days, day length, and even waxing and waning moon cycles all play a part in this majestic garden dance. It’s a place of wonder and awe, ultimately impressing on the gardener a palpable humility toward this divine ecological umbilical.

The sheer joy expressed by schoolchildren in gardens when they first discover those plump potatoes, buried under green foliage all season, is the stuff of unbridled exuberance. No discovery could elicit a more enthusiastic response. No hidden treasure can excite more enthusiasm than those potatoes rolling out of the ground. One of my most favorite interactions on our farm is when city children peek under laying hens and see eggs for the first time, the exhilaration as they catch their breath, open their mouth in a big smile of wonderment, and say to

Mommy or Daddy, "Look! Eggs!" And if they happen to actually watch a chicken squat and lay an egg, you'd think they just discovered the moon.

I'm reminded of a study I read about when Teresa and I were contemplating homeschooling our children. The crux of the study was that the earlier a child learns specific spatial data, the less spiritual the child will be. Using the moon as an example, what these researchers found was that the sooner children learn that the moon is comprised of this and that elements and that it is so many miles away from the earth, the sooner they lose their awe and wonder toward the moon. It moves, in the human mind, from a majestic orb in the sky, a mystical object of wonderment, to simply a ho-hum rock.

Maintaining a sense of awe and mystery toward the universe, and cultivating a profound sense of dependency on something bigger than ourselves, seems to be a fundamental responsibility we adults should have toward our children. To abdicate this responsibility is to populate our culture with manipulators and dominion-thinkers on overdrive. For my religious right friends, remember that the first occupation of humanity was to be a gardener—with specific restrictions on hubris, known as the forbidden tree. Overreaching dominion resulted in paradise lost. That should instill fear in all of us to not take our dominion reach beyond our grasp of creation's rules.

Watching new life spring from last season's dead and decomposed relics instills hope. The garden's cycle helps young people understand that what is will not always be, that regeneration requires death and decomposition. Out of sacrifice springs life. To encounter that, to see it, touch it, taste it, smell it, gives old-fashioned common senseand reasoning abilities. It is the real world, not some artificial cyber-fantasy that titillates the mind with cerebral extravagance. The computer game cries for more, more, more. More violence, more drama, more

excitement. More consumerism. It's like a cerebral drug trip, ever more demanding, less satisfying, dependency-enslaving.

The garden teaches balance. No gardener plants only one thing. Yes, industrial agriculture does that, but no gardener would think of such nonsense. Gardeners balance high plants with low plants, top growers with bottom growers, vegetables with flowers. The gardener learns about crowding plants, about earthworms, soil tilth, and a host of comparisons and contrasts that create a vibrant place. Carrying capacity expressed in seeds per square foot teach discipline. If you want to grow ten corn plants per square foot, try it one time. You'll be sorely disappointed. Perhaps stacking people too close together has the same result.

Disciplining ourselves to respect and honor ecological limitations and patterns is part of wisdom. Failure to adhere to these principles should make us tremble with fear. It is this kind of humility, this kind of nurturing caregiving toward creation, that children who garden bring to their adult life. While I'm sure plenty of software designers have tried to duplicate this on a video screen, the difference between seeing something shrivel on a video display does not and cannot compare to watching the shriveling occur in real life.

In addition to attitudinal normalcy, I would suggest that gardens also strengthen children's immune systems. Autoimmune dysfunction is reaching unprecedented abnormal levels. Many researchers are working on this epidemic that is pointing more and more toward what is called the hygiene hypothesis.

Callaway, Harvey, and Nisbet, in a paper published in FOODBORNE PATHOGENS AND ILLNESS, discussed the hygiene hypothesis, which they say first began being bandied about in the mid-1990s and has increased in credibility among doctors and other experts. These researches say:

"This hypothesis states that a lack of exposure of children (as well as adults) to dirt, commensal bacteria, and 'minor' pathogenic insults results in an immune system that does not function normally. This lack of antibodies to true pathogens in the immune system has resulted in the dramatic increase in allergies and asthma in developed countries over the past twenty years." According to this paper, the American Academy of Allergy Asthma and Immunology estimates that from about 1990 to 2010, people with allergies increased by 100 percent.

According to this hypothesis, the immune system becomes lethargic due to lack of true immunological exercise, a problem especially common in developed nations. My intuition, and probably yours, is that immune systems need exercise just like muscles.

Although this research is primarily aimed at sterile food, I would argue that it applies to any childhood devoid of soil contact. Most of us have heard our grandmothers say, "Every child should eat a pound of dirt before they're twelve," or some variation on that theme.

One of the central arguments in Jared Diamond's book *Guns, Germs and Steel* is that the cultures that ended up dominating the world were the ones that developed a greater array of immunities due to proximity to domestic livestock. For those of you who are already thinking along with me, yes indeed, a backyard rabbitry or chicken flock to complement the backyard garden would be a great addition to your child's immunological arsenal.

Splinters, blisters, and real dirt under the fingernails are all part of a normal childhood that builds immune systems. That, as a culture, we are reducing or even denying this immunological exercise is not only abnormal when viewed through the lens of history, but does not bode well for proper body and soul development. Indeed, it may prove devastating to children's health. Children laboring in gardens is both attitudinally and physically positive.

Weeding the beans and picking cucumbers should be seen as part of a healthy child development program. Certainly better than computer screens and television.

Where should these gardens be located? Any lawn, any flowerpot, and any windowsill offers a garden spot. Incorporating gardens into the family's domestic landscape is both normal and healthy. The notion that children actively engaged in food production exploits these little innocents just ain't normal. A normal childhood involves digging, planting, germinating, weeding, watering, and preparing. That nourishes both the immune system and the soul.

How about some things to do?

1. Grow things . . . anything. Indoor grow lights are still magic, and can bring sunlight indoors for remarkable discoveries.
2. Lobby for more lenient child labor opportunities so that once again teens can do historically normal work.
3. Instead of going on a cruise or Disney vacation, how about choosing a working ranch experience for the family, or an extremely rustic wilderness adventure where you make some traps and hunt for food?
4. Brainstorm entrepreneurial child-appropriate businesses—hand crafts, repair, tutoring, calligraphy, customized invitations, cleaning homes, mowing lawns, picking up rocks, hoeing weeds. The list of possibilities could fill many pages. Don't underestimate the creativity and resourcefulness of your sixteen-year-old unleashed on the community. Stay out of the way and let her run.