Works and Daze:
The Antiquarian Meets the Agrarian

Steve Rutledge
October 27, 2015

Steve Rutledge is an Emeritus Professor of Classics at the University of Maryland and an organic farmer.

Agriculture and farming is not often high on the career choice for students and scholars of the Classical world, and it is not a ready association that is made when one talks about the field of Classics (the study of ancient Greece and Rome, their histories, their languages, and their cultures). Thoughts come up of cerebral Greeks discussing philosophy, of mischievous gods and goddesses variously raising up or laying low hapless mortals, of Romans building siege towers as they conquer and enslave the primitive inhabitants of a barbarous Europe, of Caesar and Alexander. But animal husbandry? Bee-keeping? Proper locations for orchards? Pruning and training of vines? These are much less at the forefront, and this is, in a sense, too bad. Caesar and Alexander were, after all, forging empires, and empires "gotta eat!"

On a somewhat broader level, the humanities themselves, of which Classics is an integral part, have at their core foundation agriculture. I note this because if one considers the word *humanitas*, it is directly connected with cultivation and agriculture. *Humus* is the Latin word for earth. To cultivate the earth is to develop and change it, and the Latin term, *agri cultura* literally means "the cultivation of the field" or land. *Humanitas* is, in a sense, the cultivation of the self, of our own world and of the various "fields" that serve as pastures for the diverse environments of human thought and expression that make up the individual (and note the use of the word "fields" in our own lexicon), whether the field of music, math, language, literature, philosophy, or anything else one cares to consider. For those of us deeply involved in the study of Classics it will come as no surprise that our own discipline can never extricate itself from its agrarian roots. Simply consider the ancient canon that, as those of us involved in Classics know, includes, among other works on agriculture and farming, Hesiod's *Works and Days*, a work contemporaneous with the Homeric epics, and the inspiration for the horrible pun for the title of this essay; Vergil's *Georgics*, written under the emperor Augustus; and Cato the Elder's *De Re Rustica*, On Farming, a work of the mid-second century BC.

Beyond these works that are purely about agriculture, there is, however, a more deeply pervasive thread in Classical life and literature that highlights the inescapably agrarian nature of the Classical world. On the Greek side of things, simply consider perhaps the most ancient example: Homer's description in the *Iliad* of the shield of Achilles. It famously includes the image of the city at peace, the key indicator of which is a city depicted as rich in agricultural goods, where the inhabitants celebrate the harvest. In addition, Homeric heroes or places are given epithets such as "rich in herds," "rich in flocks," and "rich in sheep." In terms of the visual record, again on the Greek side of things, there are all manner of images in sculptures and vase paintings, of agrarian life represented in the physical remains, from the famous vase from Agia Triada, an ancient archaeological site on Crete, that shows workers bringing in bundles of cereal crops, to depictions of various domestic animals offered as sacrifices to the gods or as gifts.

The Roman record of agrarian life is strikingly pronounced throughout their literature, encapsulated perhaps most famously in the account in Livy, a Roman historian writing in the time of Augustus, about Cincinnatus, the Roman dictator who, early in Rome's republic, in the fifth century BC, saved his country from enemy invasion, gave up office, went back to his plough, and was still at it when he was called to save his country once again from invasion by the neighboring people of Veii.

Indeed, at least in Roman culture the agricultural system insidiously wound its way even into Roman names: hence Cicero (chick pea man), Ovid (the sheep guy), and Fabius (bean man), not to mention Cato's renowned clan name, Porcius (swine man), and Appius (the bee-keeper). The Roman polymath Varro, who lived during the time of Caesar and Augustus, was well aware of the origin of these names, and saw them as a reflection of Rome's early agrarian history, when the Roman farmer also played the part of a soldier in the Roman army—Romans had to be land owners or had to have patrons who were in order to serve in the Roman army.

In modern popular culture, the image of the Roman soldier qua farmer was picked up in 2001 in the movie *Gladiator*, where the movie starts with the Roman general Maximus, played by Russel Crowe, brushing his hands over a field of grain, watching the birds flutter and chirp as he cogitates his next move against the northern barbarians; later we find that his character longs for nothing more than to return to his farm, rather than fight on Rome's northern frontier. The image is straight out of Livy and creates a powerful impression on the viewer. In fact, so powerful was the image of the Roman farmer/soldier that it was adapted as well by the founding fathers: hence early portraiture of George Washington, whose first name, incidentally, *georgos*, is Greek for farmer, is depicted with the fasces, a symbol of the consulship, Rome's highest office during the republic which had both a military and civil function, and a plough. The intent in our own early republic—and it bears noting that the Founding Fathers were deeply imbued with the Classics—to associate Washington with Cincinnatus, who, like Washington, laid down supreme command to work his farm, is palpable.

One further finds in the ancient literary record what we might call an urban/rural divide, a cultural division that pits sophisticated urban life against the rusticity and simplicity of the countryside. We find this sentiment in a wide range of Roman authors, from the historian Livy, to the satirist Juvenal, to, most famously, the poet Horace, who in one of his satires contrasts the pleasures of the country to the dangers of urban life in Rome. It is a divide still familiar in this country today, with its fraught political and cultural schisms.

We could add the Roman archaeological record to this, and there is no limit to our evidence for ancient agrarian life, from Roman farmsteads in Gaul to the villas in the Bay of Naples dedicated to the production of everything from olive oil to wool. Indeed, the most prominent industry in evidence in ancient Pompeii is wool working, and one of Pompeii's most prominent buildings, the Eumachia, located in Pompeii's forum, was a guild-hall dedicated to fullers, those who cleaned and dyed wool. When I used to lead the trip to Pompeii and Italy for our department at the University of Maryland, I tried to emphasize to the students that it was easy to get jaded by all the sculpture one sees in endless array in the halls of the National Archaeological Museum, the Vatican, the Capitoline Collection, to think it blasé and ordinary. I tired to explain to them the phenomenal talent behind even a seemingly mediocre work of marble. A similar point could be made of Pompeii and the food its inhabitants consumed. Behind each bowl of stew bought from a Pompeiian *ganeum* ("eating house"), behind each cup of wine, each crust of bread, rested an enormous amount of labor, if not skill.

Even time in the Classical world was measured, in some sense, by an agrarian clock—something particularly true in the Roman world (Figure 1). Hence in April there was the festival to Robigo, intended to propitiate the god of the same name in order to keep disease away from cereal and grain crops. The Parilia was yet another festival dedicated to the god Pales who protected sheep and shepherds—again it took place in late April, soon after the Robigalia. Most strikingly of all, however, was the festival to Mars in March, hence the name of the month, which commenced both the growing season and the opening of the season for war campaigns, which was, in turn, closed with the festival of the October Horse in mid-October. Both festivals share a connection with warfare and with agriculture, with the beginning and end of the growing season directly paralleling the season for war. It is worth noting in this regard that in Rome Mars was initially both a war and a fertility god, unlike his more purely bellicose Greek counterpart, the thoroughly loathsome Ares.

Figure 1: A Roman mosaic from a house in El Djem, at the center of which is Jupiter kidnapping Ganymede. Surrounding him are four figures, representing each of the four seasons, a popular motif in Roman art in particular and indicative of Rome's agrarian origins. (This and all photos by author).

But we can get all of this from books, and much of this is well-trod territory by Classicists. However there are issues concerning ancient agrarian life that might only arouse our greater consciousness concerning the difficulties of living a rural life in antiquity—and most everyone did—once one starts to literally get one's hands dirty, experiences or reflections that might not hit us in the way they ought to until we experience them directly. Reading about a grain shortage in Rome in Tacitus, considered the greatest of the Roman historians; hearing about the Spartan army cutting down Athenian fruit trees in Thucydides, who wrote a history of the Peloponnesian War, 431-404 BC; and looking at images of animal sacrifice in sculpted relief are quite abstract in many respects. But if you try, even with certain amenities, to live and farm even somewhat like the ancients did, you quickly begin to appreciate certain aspects of ancient life, and come to view them through a very different lens.

This is not something that I fully appreciated until about four years ago, when I left a reasonably comfortable position in the Department of Classics at the University of Maryland to take up farming in western Oregon, my home state where I had lived half my life. The reasons my wife, Lori, and I made the

change is itself the subject for an entirely other essay. While I have been an avid gardener for many years, up until 2012 I had never farmed; I taught Latin and ancient Greek, and specialized in the history, culture, and politics of the late Roman republic and early empire (a period that covers roughly 150 BC – AD 150). Yet in the past four years, as a result of taking up farming and doing as much of it organically and in as "clean" and as pre-modern a way as possible, I have developed a much deeper respect for and perspective on the ancient world, and modern, than I have perhaps ever had. For our purposes, I would like to focus on three aspects of ancient farming that have touched me quite personally: expenditure of calories, problems of infrastructure and equipment, and the deep similarities between ancient and modern small scale farming.

CALORIES

In terms of my own personal experience, my biggest eye-opener starts, perhaps oddly, with Meriwether Lewis and William Clark, the two men who led the expedition that opened the Northwest up to the first European settlers. Several years ago, while driving across country, we listened to Stephen Ambrose's *Undaunted Courage*, a history of the Lewis and Clark expedition when people of European descent first explored the western United States.[1] In the course of traveling across country they were doing heavy work, with young, physically big, strong men, much, I imagine, like Roman or Greek soldiers—hauling canoes overland at times, climbing dangerous mountain passes, fording numerous rivers, and this with a small band of men.

In the expedition's journals it was casually remarked that to keep up their strength and energy their men had to consume approximately nine pounds of meat daily—each. That meant an enormous amount of hunting and foraging to keep up their energy as they crossed the continent. Some have been skeptical at this number, yet as I think of the prodigious amounts of food I could eat as a young man—I am 6'4" and over 200 pounds—I believe that this is a perfectly plausible amount of food for a young man to consume, especially one who is physically extremely active. And I have heard, though only by way of mouth, that one sociological study showed that the local Amish farmers in Pennsylvania will consume eighteen to twenty thousand calories a day; that means an enormous amount of food.

Now, flash back about 1860 years. Put yourself in the Dijon region of France, where Julius Caesar, in 51 BC was attempting to put down a rebellion of the Gallic chieftain Vercingetorix at the siege of Alesia in what was then newly conquered Gaul, the ancient Roman name for an area that includes all of modern France, Belgium, southern Holland and the Rhineland of western Germany. He has an army of around 70,000 men; they are digging a triple line of booby-traps in the form of pits of various sizes fitted with brazen spikes and sharpened branches; they are digging a double ditch, each some nine feet deep to form an earthen rampart some eighteen feet high; they are diverting a river into one of the ditches they are

digging; they are then cutting timber to form a wooden wall on top of the earthen work; at discrete intervals they are furnishing that wall with wooden towers. In addition, so that the mound on which they built the wall would not disintegrate into a muddy mess, they needed to cut and cover it with turf. They are doing this for some sixteen miles without the aid of modern mechanical equipment. They are also doing it under the impress of a relieving Gallic army of some 240,000 that is laying counter siege to them, so they need to form a double line and build similar siege works on two sides.

A basic question arises that I have never seen addressed: how many calories will Caesar need for each of his men to effectively defeat those at Alesia and to defeat the fast approaching relieving army of Gauls? This is where all of history, in a sense, becomes reducible to calories. How many calories can Gaul and Rome collectively produce to meet the needs of Caesar's army? I am not prepared to answer this question but to pose it.

I reflected much on this the first year of our farm, as my wife and I, with some help from my brother-in-law, hand dug raised beds in our garden, put in eight-foot elk fencing around that and around our goat corral, in part with the help of a tractor, and commenced to build infrastructure that was non-existent on our farm, such as coops for birds or transforming our barns, which the previous owners had used as glorified woodsheds and for storage, into housing suitable for animals, specifically, goats, chickens, turkeys, and ducks. Even with some mechanization the work was still tough, hot, and, physically, extremely taxing. Potato chips, giant sandwiches, and beer became food groups; pie was an essential staple; fried chicken and heavy meat dishes including gravy were consumed with abandon. And we did not gain weight. Farming was how and why biscuits and gravy made it into the human diet. Let me re-emphasize that this was with some degree of mechanical help and also on a small scale: our farm consists, now, of two small fruit orchards, of twenty to twenty-five assorted fruit trees each; of a large garden, about a third of an acre; of gardens and lawn around our farm house, about which more later; about four acres of pastures, segregated into four paddocks; and over thirteen acres of native oak stand.

That small degree of help came from a tractor we purchased from the previous owner. Indeed, the tractor, that wonderful masculine abstract Latin noun meaning "the dragger," deriving from the verb *trahere* (to drag), became our best friend. It can extract misplaced fence posts that would be otherwise impossible for humans to remove from the ground; it can help lift and heft 800 pound rolls of woven wire fence like nothing; it can till a garden and help to feed a family better than any troop of Germans enslaved by a Caesar. If one takes an agrarian perspective, one will begin to look at Caesar's *Commentaries on the Gallic War*, perhaps the most clichéd of all Roman texts, and marvel at the simple accomplishment, not of the vanquishing of the Gallic tribes, but at the calculation of calories expended on that province's violent annexation into the Roman sphere. As we know from the ancient writer on strategy, Vegetius, Roman soldiers consumed a great deal of hard tack, wine, and bacon or lard—particularly lard that we know

Romans cooked with their hardtack, much as American Civil War soldiers did between 1861 and 1865. The question of calories expended in antiquity is not a frivolous one. Part of the problem to understanding the actual numbers of the population of ancient Greek cities or Rome, about which we are very much in the dark, can potentially be deduced by calculating the number of calories the land can produce versus the number of calories needed to extract those calories from the land to support a population with a physically active, if not extremely taxing, way of life. It is my impression that scholars of the ancient world would be stunned to realize how much the Greeks and Romans had to eat in order simply to function, and certainly explains why we find so many amphorae carrying calorie dense products such as wine and olive oil.

INFRASTRUCTURE AND EQUIPMENT

Up until last year much of our hard work on our farm was devoted to building infrastructure suitable to creating a diverse environment based on the rotation of animals on our pastures. This entailed the conversion of our barns from shop and storage to housing suitable for animals, and building portable housing for all the animals we raise on pasture. For us this was perhaps the toughest aspect of farming. I was good at growing fruits and vegetables because I have long been an avid gardener. Animals we had minimal experience with, but have learned about raising them through a combination of helpful neighbors, mentors, extension agents, vets, and generous help from folks at our local feed store. Mechanics and construction are different though—I have never been good at them, and always been bookish, like my father, and just never learned the most basic stuff. Translate an untranslatable Greek sentence out of Thucydides? Sign me up! Change an attachment on our tractor? Not so much. I will even call AAA before I ever try to change my own tires. But on a farm you are on your own; you are either too far, or it takes up excess time to ask for help every time you encounter a mechanical problem. We went through our learning curve with the help of some neighbors and friends we made along the way, but it is a curve we are still climbing.

In addition to infrastructure there is equipment: basic tools and items, from plywood to plastic buckets, from hand sheers to sprayer applicators. It would be fair to say that we literally live and die by the plastic bucket—that is perhaps the single most important item on our farm, doing yeoman's service for everything from hauling feed or water, to acting as a harvest container for produce such as cucumbers and sweet potatoes. But what do you do in antiquity before the advent of the hardware store and plywood? The answer, as the Roman polymath Varro tells us, is to ensure that either the farm be as self-sufficient as possible or that it be as close as possible to a town where such equipment can be purchased. In terms of being self-sufficient, I can tell you that it takes three to five people to manage about four or five acres and that we are always exhausted and never at full scale self-sufficiency in the manner Varro would like. This by the way assumes no one is injured or sick—and someone is always injured or sick.

Of course ancient estates had large staffs of slaves and overseers, and even hired hands, to achieve a somewhat closed, contained system. But Varro also notes that the farm needs to have literally a sufficiently diverse environment for the achievement of that system. Hence he discusses the need for wood lots to harvest wood for everything from fuel for fire, to stakes for training vines, to wood for fencing animals. He advises the growth of hemp for ropes. And, perhaps nearest and dearest to my heart, plenty of low-lying wet spots on a farm with reeds for the weaving of baskets, which in antiquity was the version of my much loved plastic bucket. Incidentally, woven baskets served numerous purposes on ancient farms, being used for everything from hauling earth to draining curds in the making of cheese. In general, one imagines that ancient farms were much more in the nature of small villages and towns in the ancient world, and according to Varro they were; timber men, sheep herders, smiths, gardeners, tenders of vines, swine herds, and many more were all on staff on ancient Roman farm operations.

Good equipment and infrastructure is essential for the management of domestic animals and for running the farm in general. Why? Simple: animals are hard on infrastructure, do stupid stuff, and will thwart you at every turn, sometimes with disastrous or near-disastrous consequences. Some personal examples: there was the time our goats broke out of the back of the barn into our fruit orchard and had to be rounded up before they could eat $600 worth of twenty-four newly planted fruit trees. We saved them all before they could take a bite, but barely. The lesson? Put a fail-safe pen on the back door that will enclose the goats if they break out. Another lesson: you cannot have chicken tractors (i.e., small portable coops made of wood, wire, and plastic for raising birds out on pasture) and goats in the same paddock (Figure 2). That is because chicken tractors are built out of light materials that goats can easily destroy in

Figure 2: Chicken tractors out on pasture are great, but goats and sheep see them as little more than glorified chew toys and will ruin them.

a few seconds. When we put our goats on the same paddock as our tractors, they did not see chicken housing but trampolines, smashed their plastic roofs to bits, and then proceeded to consume the chicken feed: lesson learned—divide and segregate your paddocks and animals because some cannot be run with others (Figure 3).

Portable electric wire fencing for animals is a modern miracle, and I had used it, after

Figure 3: The culprits! Our little goat herd (actually called a "trip") looks benign enough, but there is no end of trouble that livestock will cause if given the chance.

that incident, to keep our goats away from our new chicken tractors this year. To no avail: our animals still thwarted us, only this time it was our new lambs, who not only felt nothing as they went through the wire due to their thick, wooly fleeces, but could also actually climb through the little doors to the coops and consume vast quantities of chicken feed; sheep are supposed to be docile and stupid, not pro-active and mischievous. Unfortunately, one of our more precocious lambs, Miss Daisy, made a dash for some chicken feed on the hottest day of the year, got seriously tangled in some wire, and nearly died both of dehydration and the loss of a hoof since the poultry netting she got tangled in had seriously cut into her

foot. The lesson? Sheep are as smart and curious as goats, maybe smarter, and need to be managed separately and kept on a different paddock from everyone else.

Then there was the day last summer when our goat bucks were in rut, hopped our fence, and proceeded to impregnate our does (female goats are called does) in the next paddock—does that we did not want to breed that year. The lesson? Mighty Aphrodite requires mighty hot wire at just the right height if you do not want to deal with the full issue of Eros (i.e., lots of unwanted albeit adorable goat kids) in the subsequent spring (Figures 4, 5). In fact, Varro urges particularly good fencing for goats, with no vineyards nearby because goats adore grape leaves; indeed, according to Varro, goats were specifically sacrificed to Bacchus, the god of wine, allegedly because the god hated goats since they so loved his grape leaves and destroyed his vines (Figure 6). As a final aside, nothing has driven home to me more why the ancient satyr, the half-man half-goat creature, was not a product so much of the human imagination as the human domestication of goats. The male goat is perhaps the most over-sexed animal on the planet and his mating rituals are, shall we say, colorful—he will urinate in his mouth and spray himself to create a musky odor attractive to female goats, albeit one that you will never remove from your nose or extract from your clothes.

Figure 4: Goat kids are adorable, and hardy. They are on their feet within about five minutes of birth and nursing about ten minutes after they pop out of mom.

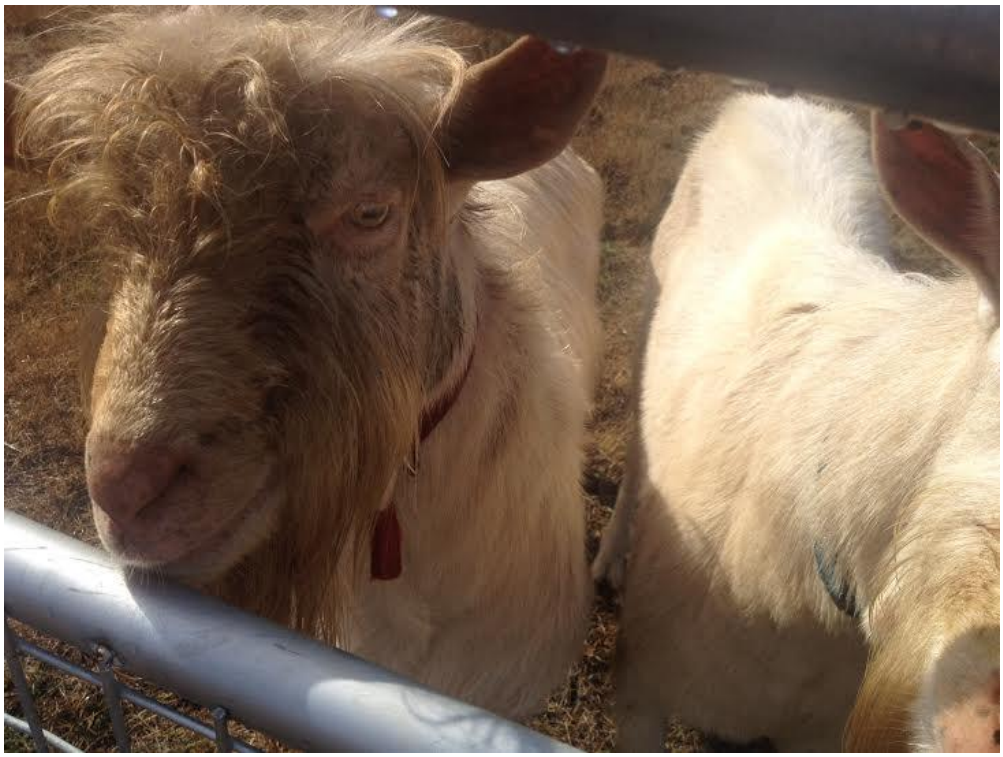

Figure 5: Satanic and smelly, goat bucks are not for the weak of heart or stomach and have a prodigious sexual appetite.

Figure 6: The vineyard next door on a fall evening; as long as we keep the goats at bay, Oregon will continue to produce some of the world's finest Pinot Noir.

CONTINUITIES: WE ARE THE ANCIENTS

The differences between farming in antiquity and today are obvious of course: slavery is gone (though the issue of farm labor is still fraught), farming is mechanized (right down to grape harvesters), and most of it is corporatized (another fraught issue). But many of the continuities between the ancient and the modern (at least small-scale) farmer are remarkable, especially if, as is the case with our farm, you strive to be organic and, for the most part one hopes, GMO free. In fact, I suspect that any modern farmer who took up Varro's work on agriculture, titled *De Agri Cultura*, which translated literally means "On the Cultivation of the Field," would be stunned by the continuities between ancient and modern organic farming. Varro at times reads like any number of contemporary books I have had to consult (and there are many) on starting up a successful small farm operation, and, when it comes to animal husbandry, Varro pretty much reads like a *Storey's Guide*, a series of books about animal husbandry on everything from keeping bees, to dairy goats, to ducks, sheep, and pigs. Let us take the choice of animals to start. It is easy to see why certain animals would be so popular for farming, why they have not changed in centuries, and why Varro devotes so much attention to them.

The Greeks and Romans kept sheep, cattle, and goats, all for their meat, milk, and wool or hides; pigs for their flesh and lard; and chickens for their eggs and meat. In addition, they also raised assorted exotic birds for their novelty at table, were well aware of aquaculture (think modern salmon and shrimp farms), and there is a copious literary and archaeological record that attests to the construction of large pools of both fresh and salt water for the keeping of fish and oysters. Some aquaculture operations were directly on the Mediterranean and had facilities that allowed fish to swim in at high tide that they then trapped for harvest as the water receded. Other "exotic" animals that were raised included snails, think ancient escargot, and dormice—a type of rodent that was prepped by dipping it in honey, rolling it in poppy seed, and frying it before topping it off with a wine sauce. We in fact know a good deal about Roman cookery and tastes, thanks in part to the survival of a cookbook by the well-known ancient Roman gourmand, Apicius, but the ancient Greek author, Athenaeus, who wrote a work called the *Deipnosophistae*, best translated "Wise Guys at Dinner," also has much to say about ancient cuisine.

Why were these animals in particular favored? Simple: fast growth, ease of temperament, and extreme hardiness that lets them thrive in numerous conditions. This is what we still look for in animals today. Take the modern pig that goes from a little piglet to 300 pounds in six to eight months and then is on your table. I imagine the growth rate of pigs in antiquity to be somewhat slower, but that depends on their diet. A free-range hog can still get quite large, but feed it less and it will root on its own and grow at a slower rate. But one can see why they are called mortgage lifters and why we encounter pigs in so many places in the Classical record, from the sacrifice of piglets at the Eleusinian Mysteries of the Athenians (mystery rites devoted to Demeter, goddess of agriculture), to the depiction of enormous pigs in Roman

art showing sacrificial processions. It was a swineherd, Eumaios, who helped Odysseus in Homer's *Odyssey* to recover his rightful patrimony back in Ithaca after the Trojan War. It was the sacrifice of a pig, in general, that made sacred and legally binding the Roman rites of marriage and Roman tombs. In the comedies of the Roman playwright Plautus (ca. 254-184 BC), slaves drool after a fine prosciutto more than once. It was a sow that portended to the Trojan prince, Aeneas, that after years of wandering he had at last landed in Italy, where he was destined to become the founding father of the *gens Romana*. It is easy to understand the hog's importance and outstanding presence, since it has many advantages and uses: fat can be rendered for soap, for lighting, and for cooking, and much of its meat cured for storage. Hogs are fertile—litters of ten to thirteen are about average, and they can farrow, i.e. birth, twice a year. In addition, hogs, were well-suited to the Italian environment in particular, as well as that of much of Europe, which was heavily forested or swampy in antiquity; pigs were originally woodland creatures and love three things: mud, rooting, and pleasure (Figure 7). They are great little work horses who will till up straw bedding that gets compacted in a barn over winter, or will till your pasture more efficiently than a tractor, and fertilize it in the process. Little wonder the Porcii, a family name that translates roughly as "the swine-herders," were such an important clan in ancient Rome.

Figure 7: A happy herd of swine tills our pasture for us. We run some chickens with them so they can get the worms the hogs root out as they shovel the dirt with their extremely powerful noses.

In fact, the ancient Romans were quite skilled in animal husbandry, and the archaeological record indicates that by the high empire (ca. AD 150) selective breeding had resulted in larger animals as knowledge of animal husbandry expanded; starting from the post-Roman collapse of the fifth and sixth centuries AD going into the Medieval period the size of animals, particularly cattle, declined. One might selectively breed for a number of reasons: temperament of the animal, size, quality of meat, productivity in terms of milk or eggs, fat levels in meat or milk, or quality of hide or wool are among the main concerns for maximizing quality and yield. The production of milk and eggs are, incidentally, surprisingly seasonal: egg production drops off when levels of light decrease, while in the fall fat content of our goats' milk increases as they produce more fat for the coming winter.

The same can be said of plants: the tomato in nature is about the size of a grape; it was only through many years of selecting and breeding certain qualities in certain plants that have today given us Brandywines, Green Zebras, Sun Gold Sweets, or Black Krims. We ourselves selectively breed, and an example of how and why is our goat named Janet; she is extremely even tempered, gives an enormous amount of milk, and is docile and even sweet natured. Her kids are the same, which means she gets bred every year (Figure 8). In order to selectively breed, however, one needs to maintain good records, whether for plants or animals. This implies to me some degree of literacy of some sort in antiquity even among those in the rural backwaters, unless we attribute the growth in, say, cattle size, to the high empire when stewards would have overseen the slaves on the estates of wealthy Romans—and Varro admonishes that farms need good written records for proper management. I myself cannot imagine even the romanticized farmer-soldier of early Rome doing much if any farming successfully without some rudimentary records for, say, his flock of sheep or herd of swine from year to year. Nor can I imagine him leaving to fight during a time of year (recall campaign season ran from roughly March to October) when herds and crops need intensive management, except with the support of a large family or staff of slaves to run things.

Figure 8: Our goat Janet has a wonderful temperament, produces prodigious quantities of milk, and is an equally good mother, and generally proud of her little brood which she births annually.

Another significant reason for keeping these animals is also, as already noted, their hardiness. Confined animals need medications because they are in unhealthy conditions. On our farm we, as was the case with the ancients, use minimal amounts of medications simply because we allow the animal to act as it was genetically designed to act: chickens scratch, hogs root, sheep graze, and goats browse. We only medicate when there is a serious health issue. It was the same for Varro and any number of ancient writers, who obviously relied on homeopathic remedies given the absence of modern veterinary medicine: weak animals are culled or will simply die of a variety of causes; about the only other "modern" remedy to which the ancients had recourse was to keep a sick animal warm, which they knew to do. Seriously ill animals were also given organic, homeopathic remedies, which we will also use, but for us, there it stops. If we have a serious issue with an animal we call a vet because once an animal is off its feet it will never get back up, and we are devoted to using humane methods in maintaining our animals and in looking after their welfare.

It is not just in the animal realm, however, that Varro reads like a modern how-to book on organic farming. There are numerous other aspects of farming Varro discusses that would be completely familiar to the modern agrarian, particularly what we might call the topography or geography of one's farmstead. Hence Varro discusses the situation and placement of buildings; the presence of and need for water, something paramount in our thirsty climate out west; the creation of windbreaks; the laying out of orchards; the placement of gardens and flower beds; the need of lowlands for cereal that can withstand moisture; vines on hills, for wind aeration that helps avoid fungus; and of forest in mountain, for timber. Nothing has changed.

Indeed, Varro's discussion of what are known as "cultural controls," i.e., the use of organic or natural solutions—did the ancients have any others?—for all manner of pests that could attack plants or storage crops would be recognizable, one suspects, to most extension agents. Hence the use of amurca, the leavings of olive pressings, which acted as a deterrent for ants, voles, and weeds as it was observed that when olives were pressed in the fields or orchards, nothing would grow where this residue was left—think ancient Round Up. For the protection of grain from rodents while in storage, wormwood and amurca were smeared on the floor, or they used cats, who famously patrolled the ancient granaries in Rome and whose descendants now grace Rome's Largo Argentina with its cat clinic.

Varro also discusses soil tilth and composting, advising what any extension agent would, that well-rotted manure is preferable to fresh, that chicken manure can be too hot for plants. He also discusses in detail the varying qualities of manures of different sorts. This is perhaps, after animal management, the second most important aspect of farming for us, managing animal waste. The ancients of necessity were outstanding observers, and they knew full well the importance of the addition of organic matter for soil health. They also knew all about green manure crops—that is cover crops that help fix soil nutrients, particularly nitrogen—for soil health that are then tilled into the soil for maintaining tilth. Out west, where we are surrounded by monoculture, we are often urged by our neighbors to fertilize our pasture with chemical inputs; these are the same neighbors that come to admire our thick lush grass in the spring whose only input has been a flock of chickens, whose manure produces great nitrogen for the grass, which in turn provides good healthy clean feed for our animals, including the chickens themselves who get good omega threes from the grass (note in Figure 2 how beautiful the grass is; that is the work of chickens, not Monsanto). The Romans also knew that lime was essential for soil health; when I used to lead trips to Italy and students would ask how so big an ancient city vanished I would simply tell them, the fields of the Roman countryside, by which I meant that much of the marble, consisting of limestone, was burned down in lime kilns in the course of the Middle Ages and scattered on the field after Rome's fall (collapsed empires need to eat too!), or used to make stucco for buildings constructed in the Middle Ages and Renaissance. Liming in the northwest is even more essential than in ancient Italy, since the

copious winter rains tend to leach calcium out of the soil, requiring annual liming in the late summer or fall.

Yet another remarkably familiar aspect of agriculture addressed by Varro is that of markets. Where are you going to sell your products in order to have an economically sustainable farm? As noted, Varro reads like some classic contemporary how-to books on small scale farming, including markets, profitability, and management of employees, in addition to siting and purchasing a suitable farm property. But it is not all utility and economy, either for Varro or for us. Farmsteads ought, in Varro's opinion, to maintain gardens simply for the sake of pleasure, a concept that was deeply etched in the ancient psyche and one still important for us. The ancients appreciated the calming and restorative effects of gardens, and may have derived the idea from the Near East, where the Persian King of Kings refreshed himself in a large paradeisos, royal parks that consisted of fruit orchards, woodlands for hunting, water features for their cooling effects, and various other amenities. The great Athenian statesman Kimon (d. ca. 460/61 BC) endeared himself to the Athenian demos by making his own gardens public, thereby giving free access to their fruit trees. The renowned philosopher Epicurus famously taught in a garden because, as the Roman author Seneca tells us, it was believed to impart a sense of well-being to his disciples. Caesar famously bequeathed his gardens to the Roman people in his will. The empress Messalina, wife of the emperor Claudius, AD 41-54, murdered a popular senator, Valerius Asiaticus, because she coveted his lovely gardens, once owned by the luxurious and extravagant Lucullus, a Roman grandee who lived a generation before Caesar. It was in those very gardens, ironically, that Messalina met her end when she was executed for adultery. But you need no Varro, no Caesar, to tell you about the ancient love of gardens. The paintings from Pompeii, from the villa of Poppaea Sabina, Nero's wife, at Oplontis, from the villa at Primaporta, that once belonged to Livia, wife of the emperor Augustus, all attest to the ancient passion for green space, as do the remains of houses and villas throughout the Roman world (Figure 9). Respectable Roman villas and townhouses, such as we find from Greece to Spain, from Africa to Italy and beyond, had a "green heart:" that is, a cluster of rooms for various functions that aggregated around and opened up to a garden space where one might find oleander, rosemary hedges, fruit trees, fountains with statuary, or even small vineyards. The whole idea was to bring the outside "green world" inside the house. We share the ancient passion for green space on our own farm, and much of our time has been consumed in our first four years on our farm maintaining and restoring the gardens installed and planted by its previous owners, two art professors who had an outstanding eye for symmetry, and the cleverness to hide it (Figure 10).

Figure 9: The garden portico of a Roman house in El Djem, Tunisia. The Romans adored gardens, and in their architecture strove to bring “green” spaces indoors.

Figure 10: One of several gardens on our farm, this one in the shape of a circle with raised beds made out of old wine bottles. Our roses and dahlias have now matured, and in the summer the garden is a riot of color.

TO CONCLUDE: WE ARE ON THE GODS' CLOCK

For virtually my entire life, first as a student then as a scholar, my time was ruled by the tyranny of the academic calendar. While I still teach as an adjunct at a local college, my time and life are now ruled by the calendar of the gods and of the zodiac, knowledge of which was vital to the ancients, and has a prominent place in Varro and Vergil both. Time for me now is measured by this very different though even more imperious rhythm: the year starts, in January, with pruning some of the forty or so fruit trees we have planted; February is for getting starts going in our green house; March is for tilling and birthing of goats; April and May are for planting and raising chickens for meat; June through September is for harvesting and preserving fruits and vegetables; September is the cruelest of months—all the delicious fruit and tomatoes come in and need to be put up, and cider needs to be pressed (I brew about thirty to forty gallons of hard cider annually), and any winter crops need to be planted; October is for tilling the garden, putting it to rest, sowing cover crop, preparing for winter, breeding goats, and harvesting pigs; November is the season for turkey harvest; December is about the only month in which we rest. As with the seasons, each day has a rhythm: at sun up we feed and water animals and milk goats; the garden always needs tending, even in winter, since we eat out of it year round; then we do what the order of the day or the seasons might necessitate—construction, trips to town, making cheese, tending a sick or wounded animal, managing irrigation in our garden; it's then time for dinner; there are evening chores when water and feed need to be checked; then close up—the chickens go to roost, the pigs make for their nests in the woods, the goats bed down for the night, we close doors, gates, and coops.

The popular vision, if there can be said to be a popular vision, of the gentleman farmer is shaped, at least among American intellectuals, by Thomas Jefferson, who conjures visions of a cultivated man reading the Classics, working his land, making diligent notes about varieties of plants, orchards, and animals. My own reality is far different: yes, we need to keep records. But we are much more on the labor side of the equation than Jefferson ever was, though I still manage to read some Homer, Thucydides, Tacitus, or Vergil daily. Indeed, I feel more deeply connected to the Classical world than I perhaps ever have, and the classical world has been encountered by me in sometimes surprising ways.

A brief and final example of this: my personal favorite Latin poem is Vergil's fourth book of the *Georgics*. It is about bee-keeping and the origins of bee-keeping. In that book Aristaeus, a mythological shepherd, has lost his bees as divine punishment for his accidental complicity in the death of Eurydice, Orpheus's wife. To get his bees back he is instructed to kill a calf and allow its dead carcass to rot, from which bees will spontaneously appear. I never gave the story too much thought—I was more interested in how Vergil, and Varro as well, felt bees to constitute a highly intelligent and industrious society from which their human keepers could learn. Bees in Classical antiquity were all about industry and cooperation, a perfect reflection of the divine order of the universe, with their perfect hexagonal houses

and their divine product of honey. It turns out, however, that the myth is in a very real sense true, as a carcass of a squirrel killed by one of our cats one day illustrated to me, on which a group of bees were gorging themselves. There was Vergil's poem, in my garden, at my feet, a macabre but living example of a world gone but not passed.

To conclude on a somewhat earnest note, some of the most enthusiastic and successful young farmers I have met have degrees in the humanities: art, English, archaeology, you name it. One young man we are helping to mentor is an up and coming goat farmer who, up until the outbreak of the war in Syria, was working on a doctorate at University of Pennsylvania in Near Eastern archaeology and digging at Mesopotamian and Assyrian sites in that country. Tending land carefully and in an environmentally sustainable way is perhaps one of the hardest undertakings my family and I have ever faced, but I have also come to appreciate it as a creative process, much in the way scholarship is as well. In undertaking farming on a small organic scale, I have come to have a deep appreciation at what those who lived in the pre-modern era faced. They approached agriculture with a great deal of thought and experimentation, because it was and remains a matter of life and death for us. To take up the plough for the pen is not to relinquish your regalia for a tractor, quite the opposite. It is to enter a deep continuum, in which one lives antiquity daily, and enters the world of Varro not just intellectually but in many respects still today, literally.

NOTES

1. Stephen E. Ambrose, *Undaunted Courage: Meriwether Lewis, Thomas Jefferson, and the Opening of the American West* (New York: Touchstone, 1996).