

Race and Class, 44(3), (January-March 2003): 40-57.

American Cataclysm
BY E.G. VALLIANATOS

Small rural towns in the United States are falling apart because agribusiness has been sucking the life out of them. Consider, for example, Arvin, a small rural town in southeastern Kern County in the fertile Central Valley of California. In 1940, factory-like farms surrounded Arvin. Arvin, however, did not share in the prosperity of those factory-like farms. The average farm size of Arvin was 500 acres. Only thirty-five percent of Arvin farmers owned their land. Only four percent of the people of Arvin were native Californians. Sixty-three percent were Dust Bowl migrants with less than five years of residence in the town. They earned little and did not have much interest in their community. Even the managers of the large farms were absentees. If any businessmen lived in Arvin, they went to Bakersfield and Los Angeles for recreation. Arvin's school teachers found the town so distressing that most of them lived in Bakersfield, commuting 22 miles daily. The elementary schools, churches, and the economy of Arvin were impoverished. Arvin had no high school. The town had no elected political leadership of its own. It was unincorporated. Its large farms converted it into a slum and a colony.

We know these things about Arvin because of Walter Goldschmidt, an anthropologist with the US Department of Agriculture (USDA) in the early 1940s. Goldschmidt studied Arvin.¹ He compared his findings with what he discovered in another rural town that was dominated by small farms. This was Dinuba in northern Tulare County in California's Central Valley.

In 1940 the average farm in Dinuba was 57 acres. More than three-fourths of the farmers of Dinuba owned their land. Dinuba's economy and culture were vigorous and democratic. Its elementary and high schools were good. The teachers lived in town and made outstanding contributions to the culture of the community. Dinuba's residents were middle class persons with good income and strong interest in their town. Nineteen percent of the people of Dinuba were native Californians and 22 percent Dust Bowl

¹ Walter Goldschmidt, As You Sow: three studies in the social consequences of agribusiness (Montclair, NJ, 1978, first published 1947).

migrants. The median length of residence at Dinuba was between 15 and 20 years. Dinuba's prosperity was the prosperity of its small farms.

Yet Dinuba and Arvin were similar rural towns. They enjoyed the same climate and fertile land. They were equidistant from small and large cities and had access to highways and railroads. They had the same industrialized farming, relying on laborers to do the hard and dangerous work. They specialized in single crops, which they produced exclusively for cash sales. Dinuba raised fruits, especially raisin grapes, some cotton and vegetables. Arvin produced largely cotton, potatoes, fruits and vegetables, grapes, and grain.

The sole factor that made Arvin and Dinuba different was the size of the farms -- Arvin had large farms and Dinuba had small farms. Ninety-one percent of Arvin's land was in farms larger than 160 acres but only 25 percent of Dinuba's land was in farms of over 160 acres.

The economic, social and democratic consequences of farm size in Dinuba and Arvin were dramatic.

Dinuba's small-farm economy supported 62 business, Arvin's large-farm economy 35. The volume of retail trade in Dinuba for a year was \$ 4,383,000 and for Arvin \$ 2,535,000. The small-farm community spent over three times more money for household supplies and building equipment than the large-farm community. More than one-half of the breadwinners of Dinuba, but less than one-fifth of the breadwinners of Arvin, were independent businessmen, white-color workers or farmers. Less than one-third of the breadwinners of the small-farm community were agricultural workers while nearly two-thirds of those gainfully employed in the large-farm community were agricultural workers. Dinuba had three parks and two newspapers. The town had paved streets, sewage, and streetlights. Arvin had but a single playground loaned by a corporation and one newspaper. Arvin had practically no paving, streetlights, or sidewalks. It had inadequate water and sewage facilities. For these reasons, Goldschmidt said, Arvin was "less a community than an agglomeration of houses."

Goldschmidt believed the family farm was "the classic example" of American small business. He was convinced that its spread over the land "has laid the economic base for the liberties and the democratic institutions which this Nation counts as its greatest asset."

USDA, however, did not see the family farm as a national asset. It fired Goldschmidt and tried, unsuccessfully, to suppress his work. There's no mistaking, however, Goldschmidt was right. Arvin was not merely a disintegrating rural community in California's Central Valley but the nightmare of rural America. Agribusiness was killing family farming and industrializing the countryside. Even the government, USDA, was becoming a subsidiary of agribusiness.

This was bad enough, and not merely because of the concentration of land and power at the hands of a few men. Goldschmidt accused agribusiness of destroying the "American character" which, he said, "was forged in its rural hinterland: the frontiersman melding into the freeholding farmer created a pattern consisting of egalitarianism, personal independence, the demand for hard work and ingenuity, self-discipline, with the ultimate reward in a personal success."

Despite the national importance of the freeholding farmers, however, the United States abandoned them to agribusiness which either kicks them off the land or, Goldschmidt says, remakes them into "organization men in overalls."

I met Goldschmidt in 1987 in Florida at an academic conference. I asked him if the country had a chance to break up agribusiness and distribute its lands to small family farmers, in other words, do to America's large farmers what the American general, Douglas MacArthur, did to the large farmers of defeated Japan. He said my proposal was not feasible without a willing dictator-president. I was stunned and rejected his argument. But, deep inside, I knew he probably was right.

I was in Washington, DC, in the mid-1970s when the Small Business Committee of the Senate held extensive hearings on the fate of the family farmer. Senator Gaylord Nelson of Wisconsin was one of the very few voices behind Congress' belated interest on family agriculture. Witness after witness would describe the crimes of agribusiness against family farmers and rural America. Yet, listening to the testimony of the defenders of family agriculture, I felt like I was at a funeral. It made no difference how passionate the testimony was. The victim was already dead. And no one was there to listen. Congress and USDA pretended the tragedy of family farming did not exist.

Yet that tragedy affected me profoundly. I spent the best years of my life studying agrarian issues. Moreover, I paid a heavy price for defending the idea of family farming in my work at agencies of the federal government. It was not merely USDA which sided with giant agriculture throughout the twentieth century. The entire government of the United States was afflicted by the agribusiness disease.

America's agricultural tragedy also brought me in touch with my own Greek upbringing – entirely agrarian and almost ancient – and I felt the pain of witnessing the undoing of America's rural culture.

Something sweet in the bitterness of farming

The Greeks anchored their civilization on the values of the land and very small farms. Plato and Aristotle considered the small farmers the best citizens of the Greek republics. Xenophon (430-354 BCE), a student of Socrates, a historian, and a general, was right. He said agriculture was the mother and nurse of Greek civilization. He was also convinced farmers were generous people.

Very small family farmers, not philosophers, put together the democratic foundations of the Hellenic polis (state). From that agricultural beginning, the Greeks crafted the values and political institutions that suited their temperament and ethos – piety for the gods, citizen armies, the civilian control of the military, private property, art, theater, philosophy, science and literature. These were the ideas that made Greek civilization so powerful and lasting.

Agriculture was hard work, however. The overwhelming reality behind everything the Greeks did was their precarious agrarian life – making a living on tiny strips of land at the feet of hills and mountains, rarely on valleys. Menander (c.341-291 BCE), a comic poet, captured the Greeks' agrarian struggle. He described the Athenian farmer, the Attic man of the land, “working with stony soil, full of thyme and sage, but getting a good deal of pain and no profit.” Yet Menander also saw sweetness in the “bitterness of farming.” That sweetness was the democratic liberties farmers enjoyed – and the harvest. All agricultural festivals were propitiations to the gods for the blessings of freedom and for increasing the fertility of the land, for a good harvest.

In the month Skirophorion (June), Athenian women celebrated Skirophoria, a festival honoring Demeter, the Greeks' greatest agrarian goddess. The women threw various offerings, including piglets, into pits. During the Thesmophoria agricultural celebration in the month Pyanepsion (October-November), those same women collected the bones of the pigs from the pits and mixed them with their cereal seed sown at this time of the year. The women prayed to goddess Demeter for the fertility of their crops. In the month Anthesterion (February-March) the Athenians broke the isolation and anxiety of winter and prepared themselves for the coming spring with their spectacular three-day wine festival which they called Anthesteria, the feast of flowers, in honor of god Dionysos.

Summer was harvest season. Hesiod, a shepherd and an epic poet from Boeotia who thrived 2,700 years ago, says the countryside resounded with feasting, singing, playing the flute, and having fun -- men on horseback moving about, others going hunting hares with sharp-toothed dogs, family farmers furrowing the divine earth. The crops would stand tall, the reapers mowing them down, the stalks grain-heavy at the top, this being Demeter's gift of food to the Greeks. Men would toss the grain sheaves on the threshing floor, others, sickles in hand, would harvest the vines. Workers carried baskets for the white and black grapes picked from the row of vines. And the vines were full of lush grape clusters. Men were treading grapes; others drew the liquid wine, while still others were having wrestling matches. Summer was also time for leisure in the countryside, a season, Aristotle says, of thanksgiving for a good harvest, Greeks gathering for sacrifices to honor the gods, offering them the first fruits of their hard labor.

Only when Greece lost its freedom to Rome, large farms began to undermine local democratic institutions and the independence of the small family farmers. With the Romans, large farms and the slavery of the small farmer brought down their republic. Pliny the Elder (23-79), a Roman natural history writer, complained that large estates ruined Italy and the provinces. Yet imperial Rome made large farms the icons of its aggressive policy in the Mediterranean.

It was Christianity, much more than Rome, however, that wrecked the agrarian and religious foundations of Greek culture. It took Christianity and Rome about 800 years of warfare against the Greeks to force them to delete Dionysos from their vine farming and culture. This ethnocide came to an end

during the twelfth century. More than 200 years later, George Gemistos Plethon (1355-1452), a Platonic philosopher in Mistras, the provincial capital of Peloponnesos, urged the Roman Emperor to abandon large farms and return to small family farming for the Greeks. In fact Plethon's agrarian proposal -- probably the most radical agrarian reform idea in the Western world -- would have abolished not merely plantations but farm workers and private ownership of land. Modest-sized farms would be available to families to earn a good living for as long as the members of the family did all work. Once a person or a family stopped working the land, it reverted to the state.

Plethon wanted to bring the Greeks to their senses and back to their Hellenic culture. He urged the emperor to discard Christianity and return to the Greek gods. That way Greeks, rather than mercenaries, would fight the Turks who were threatening the empire, and Greece, with extinction. The Roman Emperor did nothing and the Turks swallowed the empire in 1453, a year after Plethon's death.

Despite the harrowing vicissitudes of the Greeks at the hands of the Romans, the Christians, and other barbarians, including the Turks, they never lost their agrarian character and virtues.

I will never forget my pleasure as a teenager in treading on the grapes in the stone linos, a small enclosure built right against one of the walls of my house in the mountainous village Valsamata of the Greek Ionian Island of Kephallonia. Linos was the son of Apollo and the teacher of the great musician Orpheus. Linos was intimately related to the music and enjoyment in the making of Dionysos' sacred wine.

It was that essential celebration of life and agrarian culture that Dionysos brought to the Greeks that the Christians suppressed. In fact, Christianity was so brutal towards the gods-venerating Greeks, that after it made them Christians, it imposed on them so many saints' days when they were forbidden to work, they barely had time to raise their food. Yet linos and the happiness of wine making survived.

The linos in my house was like a small swimming pool with a well sunk in front of it for the grape juice. My cousins and I -- and sometimes one or two other men -- with bare, clean feet would get in the midst of those small hills of golden and black grapes and start our labor of love. We would

march in that mass of soft fruit until all of it was pulp. The feel of the grapes was heaven. The sweet aroma of the flowing juice hung in the air like millions of drops of ambrosia. And for me, the experience was the closest thing I could do to worship Dionysos. The laughter, the games, the food, and the wine made for exquisite labor that connected us intimately to our Greek culture. In the sweet heat of late August, the entire village and island echoed this ancient tradition, celebrating the harvest of grapes and the making of wine.

Treading on my father's grapes was my way of tasting the sweetness of my father's farming, a way of life for most Greeks down to the early 1960s. My father's farming was the ancient Greeks' farming – the same humility on the benevolence and wisdom of nature, the same ten hours a day of work on strips of land that together made no more than 9 acres, the same love for donkeys, mules and horses, the same tools. For wheat we used a wooden plow and hoes for cultivation, sickles for harvesting, circular stone floor for threshing, pitchforks and wooden shovels for winnowing. The sacred olive tree was a symbol of peace for the ancient Greeks. They used small cuttings from the olive tree to award the Olympic champions. The olive tree was food, oil, wood, and fuel for light to us and our ancestors. We had a wooden press, similar to the winepress, for the extraction of oil from the crushed olives. However, by the time my father was at his most successful period of farming, in the 1950s and 1960s, a mechanical olive press replaced the traditional methods of getting the oil out of the olives. A mechanical wheat harvester also roamed the village.

My father's farming sustained us during the German and Italian occupation during World War II. My father's farming was defiance, self-reliance, and equality. We raised wheat, barley, lentils, wine, and olive oil. We also had small flocks of goats and sheep. We followed Aristotle on self-reliance.

The main reason my father's agriculture was the farming of the ancient Greeks was that Greece remained a nation of smallholders farming their land all over the country. The few millions of very small farmers were the arteries for the distribution of economic power and democratic institutions in the country. In addition, my father remained faithful to the agrarian nature of Greek civilization.

The Greeks built their civilization on agrarian values. Uppermost in their development of democratic states, the Greeks insisted that the size of the average farm be modest (about 9 to 13 acres) and that the largest farm ought rarely to be five times the size of the smallest farm.

This Greek farming is now on the verge of extinction. The Americans were successful in converting the Greeks to agribusiness. The second Christianization of the country took the form of agronomy and tractors.

I visit Kefhalonia almost every year. With the exception of local olive oil, wine, and fruits and vegetables, the rest of the food comes from other regions of Greece. Villages are nearly empty of small farmers. The island lives or dies on tourism. It has been nearly impossible for me to find some one from the village to work my land. I visit my empty house next to other empty houses and there's no dog, Argos, waiting for me, not even a dying Argos moving his tail to tell me he recognized me. My childhood neighborhood is becoming a ghost neighborhood. My beloved donkeys and mules and horses don't exist anymore. Unforgettable images in my mind from my teenage years are primarily agrarian. They include following a loaded donkey in the heat of August to water the young olive trees; bringing food to my father, sisters, and cousins at harvest time; and, at other joyful occasions, running fast on horseback in the small, beautiful, village valley next to the water wells and the huge, ancient plane trees.

Now the very few family farmers in Kefhalonia drive small trucks. They work on larger pieces of land with machines and fertilizers and pesticides. They are complaining of the scarcity of traditional seeds. Hundreds of Greek varieties of the life-giving wheat, rye, and barley are lost. Rodakina (peaches), like the breasts of Aphrodite, are gone. The bees of Crete will never make their fragrant honey again. And the Thessalian war-horses that led Alexander in his global conquest and spread of Greek culture are becoming extinct.

There's a discontent over Kefhalonia and Greece. Rural towns are not yet like Arvin, but they are marching that way. The country is losing its ancient agrarian culture – the sole unbroken root to ancient Greece -- for the temporary seductiveness and profit of alien ideas from America and Western Europe. These half-baked doctrines urge the Greeks to convert themselves and their agriculture to genetic engineering and factory-like farms.

Giant agriculture – America’s most violent impulse

Thomas Jefferson respected the ancient Greeks. His affection for Greek culture found expression in the agrarian model of democracy he designed for the United States. Jefferson’s yeoman farmer was the Greek farmer. Yet, by the twentieth century, the United States dismissed the Greek agrarian example and followed the imperial Roman model. Its agriculture became its most violent impulse.

Henry A. Wallace, Secretary of Agriculture during the 1930s, said that while the Indian “did little to change the character of the land,” the white man came with “ax and plow and livestock,” pushing the frontier westward, clearing the land of forests, turning the prairie sod, and overstocking the range.

The white man also came with science. He sowed the turned prairie sod with hybrid corn and the consequences were just as dramatic as those of the plow, ax, and livestock. First of all, the yield of this science corn increased spectacularly so that between 1930 and 1965 the United States produced an additional 2.3 billion bushels of corn on a corn acreage that had been reduced by more than 30 million acres. In fact hybrid corn replaced the open-pollinated corn very fast. In 1933, one percent of the Corn Belt was sown with hybrids. In a little more than 10 years, in 1944, eighty-eight percent of the Corn Belt was growing hybrid corn. And because farmers cannot replace hybrid corn without considerable yield loss, a new hybrid seed corn industry came into being. In 1934 that industry made about \$ 70 million in sales. By 1981, the hybrid seed corn companies earned about \$ 2 billion.

The choice of hybrid corn over open-pollinated varieties also meant that the farmer could mechanize because the essentially identical hybrid corn plants were ideal for machine harvesters. Iowa corn farmers, for example, went to mechanization as rapidly as they could. In 1935 fifteen percent of them had mechanical pickers. By 1945, seventy percent were using harvesting machines. In addition, hybrid corn farmers planted their hybrids closer to each other and fertilized them more heavily. In the years 1950 to 1980 the amount of hybrid corn used as seed for each acre nearly doubled. Despite the fact that the total area of land growing corn increased by only 2 percent in those same 30 years, the volume of hybrid seed corn sales increased by 60 percent and the tonnage of nitrogen fertilizer went up by a

factor of 17. Of course, growing corn plants very close to each other with abundant fertilizer contributed not merely to larger harvests of corn, but also to significantly larger harvests of weeds, insects, and disease. This, inevitably, made corn dependent on pesticides, particularly weed killers.

All these changes were taking place in the early 1940s – a period of war that had a powerful impact on the growth of the chemical industry and industrialized agriculture. By then, the Germans had discovered the nerve gases, chemical weapons lethal to people. After World War II, the nerve gas weapons moved to the armory of large farms all over the world. Nerve gases kill men and insects in the same manner – by suffocation. They were recycled in the form of an insidious insect and man killer, parathion, belonging to a class of nerve poisons known as organophosphates. Parathion, and dozens of other nerve gas agricultural sprays, reveals the often-intimate relationship between war and industrialized agriculture. The one is the conquest of a society by another through the killing of many men; the other is the conquest of nature through the extermination of insects, unwanted plants (deceptively called weeds), birds, and other forms of wildlife farmers find troublesome.

It was DDT, however, that was the granddaddy of the farmers' agROTOXINS. It came into being in 1939 when Paul Herman Mueller, a chemist working for the Swiss company J. R. Geigy, discovered DDT's killing power against insects. The military did not use nerve gases during the war, but it used DDT to control a typhus epidemic in Italy in 1943 and 1944. Soon thereafter, DDT became the Western man's golden bullet for the control of nature. Industrialized farmers and malaria workers made DDT a global spray with nearly miraculous effects. So much was DDT at the center of the exhausted life in the West that it was praised to heavens. In 1948 Mueller received the Nobel Prize in Physiology and Medicine for his research on DDT. But, in fact, it was not Miller who received the honors of the Nobel committee. The Nobel Prize went to DDT. Yet the Nobel committee learnt nothing from this embarrassing episode. In 1970 it awarded its prestigious prize to an American, Norman Borlaug, a wheat and an insecticide man of the Rockefeller Foundation who sparked Mexico's destructive conversion to the agribusiness farming of the United States. The post-World War II countries, fighting warm and cold wars, have been in love with poisons. Those agricultural weapons capture the hatred and bullets of war. They offer simple solutions to complicated biological and social problems.

The appearance of another DDT-like weed killer, 2,4-D, increased public confidence, especially the confidence of farmers, that pests would not have a chance against the new weapons of chemistry.

Such confidence, of course, was misplaced. Agricultural pests adjusted to the farmers' toxic barrage and evolved into super bugs. There are more than 540 such super bugs in the United States and the world in 2002. They eat a lot of the farmers' crops, but they are nearly indestructible. Despite the billions of pounds of poisons they spray yearly on their crops, despite the genetic engineers making the crops themselves deleterious to the insects, American farmers lose a third of what they produce to insects and other pests. In the Third World farmers hooked on pesticides lose to pests as much as half of the food they produce. American farmers lost \$ 4 billion in 1904 from pests eating their crops, \$ 6 billion every year during 1910-1935, \$ 27 billion every year during 1942-1951, \$ 30 billion during 1951-1960, and \$ 77 billion during 1974.

The near simultaneous emergence of the nerve gases for raising food, the planting of hybrid corn, and the farm use of DDT had a lot to do in shaping the science-based agriculture we have today. This is a huge industrial enterprise supported by relatively few crops, a handful of corn-fed meat animals, an ever smaller number of mechanized farmers cultivating larger and larger pieces of land, and chemicals. If we don't count the food the United States imports, and the fish from rivers and oceans, Americans spent \$ 661.1 billion for food in the year 2000. Eighty-one percent of that or \$ 537.8 billion went for the domestic marketing of that food. The remaining 19 percent or \$ 123.3 billion went to the farmers who produced food in the United States in the year 2000.

The owners of America's large farms earn most of the money Americans spend for food. They arm themselves with tractors and other technologies so they would control nature itself. Their hubris knows no bounds. In 1953 they commanded tractors of 115 million horsepower. By 1983 that enormous mechanical power had more than doubled to become 278 million horsepower. From the 1960s to the 1990s the value of machinery and chemicals increased from 25 to 50 percent of what it takes to farm in the United States.

The costs of this farm industrialization have been high. Powerful machines make farmers powerful and large. These large farmers use their machinery and toxins to farm enormous territories. They colonize rural towns and empty the countryside of small farmers. Which is to say, large farmers, with their ownership of most of the land and with their excessive power, cripple political democracy which relies on economic democracy, a lot of small family farmers doing well, having a stake on both the land and constitutional government.

In the Westlands of California, for example, 10 farmers own about 260,000 acres of irrigated land. It costs the federal government \$ 2,200 a year to deliver enough water to irrigate an acre in the Westlands. Every year each Westlands farmer with 960 acres of irrigated land receives subsidized federal water worth more than \$ 2 million. Giving these large farmers such undemocratic, princely privileges and, in addition, allowing them to throw out of agriculture small family farmers is a tragedy and a failure of democracy. The 20th century was a killer century. It nearly finished off family farming and democracy in the United States.

In the 1920s, about 600,000 farmers per year were forced to abandon farming. The extremely violent rural exodus became a stampede from 1940 to 1960 when about 1,000,000 farmers per year had to say goodbye to rural America and their dream of a good life from raising food and being good citizens. America's farm population in 1940 was 30.5 million people. In 1960, the year before I arrived in the United States, the farm population had declined to 15.6 million farmers and their families. In the early 1970s, the number of farmers in rural America had dropped to less than a third of what it was merely 30 years earlier. In other words, there were less than 10 million farmers and their families in the United States in the early 1970s.

Racism drove black farmers out of agriculture. From 926,000 black farmers in the 1920s, there were some 46,000 left in 1974. The loss of 95 percent of black farmers in 54 years was a calamity that undid all that the former slaves had ever gained after centuries of servitude.

In 1979, the farm population had sunk to about 6 million. The 1980s dealt another violent blow against rural America. Rapid and unprecedented disintegration struck hundreds of farm town and communities throughout the contiguous Farm Belt States. So many farm people were kicked off their farms and communities that society and social services and institutions

nearly collapsed in a huge swath of the countryside of the United States. In the 1980s, about 200,000 family farmers per year were thrown off agriculture. In the 1990s, the cruel and violent exodus from agriculture claimed some 100,000 family farmers per year.

Rural America is falling apart: In the place of flourishing rural communities, one sees poor people and decaying social organizations, rural ghettos with farmers on public assistance, main streets of dealers, brokers and agents. The farmers don't raise that much food as they *produce* commodities for a handful of agribusiness corporations with enormous power. Now more than ever they are "organization men in overalls."

Among the farmers themselves, there are great inequalities that shift land, food, wealth and power to a tiny agribusiness class. By late 1970s, 3.6 million farms of less than 50 acres represented 57 percent of all farms but only 6 percent of all farmland. However, 1.6 percent of farms larger than 1,000 acres owned 34 percent of the farmland. And those farms larger than 5,000 acres, a mere 0.2 percent of America's farms, had control of 14 percent of the farmland. Five percent of the landlords owned slightly more than half of the farmland. The largest 5 percent of the landlords owned 70 percent of the farmland in the Pacific States and 66 percent of the land in the Mountain States. In the late 1980s, about 1.4 percent of the large agribusinessmen produced more than 30 percent of our food. And it is these large "growers" who benefit the most from billions a year of federal agricultural subsidies.

By late 1980s, the beneficiaries of federal and state government favors and subsidies (giant agricultural companies and very large farmers) forced 70 percent of 2 million farmers into obscurity verging on extinction. These are America's "family farmers" producing less than 10 percent of our food in their "hobby farms."

By the dawn of the 21st century – the year 2000 -- the subsidies to giant agriculture were high enough to hurt the already moribund family farmers even more. Direct government payments to America's farmers in the 1990s were in this order and magnitude: 1991 (\$ 8.2 billion), 1992 (\$ 9.2 billion), 1993 (\$ 13.4 billion), 1994 (\$ 7.9 billion), 1995 (\$ 7.3 billion), 1996 (\$ 7.3 billion), 1997 (\$ 7.5 billion), 1998 (\$ 12.2 billion), 1999 (\$ 20.6 billion), 2000 (\$ 23.3 billion).

This national policy, says the Center for Rural Affairs, a civil society farm organization from Nebraska, of paying giant agricultural companies billions so they drive "family farms out of business...represents a failure of

democracy.” Even Chuck Hagel, Republican senator from Nebraska, complained in November 2001 that it was wrong for the federal government to send 64 percent of the farm checks to 10 percent of the farmers. Senator Hagel knows. His state, Nebraska, is the very bottom of what agribusiness has done to rural America.

Forty-nine of America’s fifty poorest counties are rural. Agribusiness is using this vast impoverished rural estate – empty largely of people -- in producing wealth with its factories of wheat, corn, soybeans, cattle, poultry, and hogs, while it is colonizing and obliterating small family farmers and their communities. California was the first victim of that aggressive policy. *The grapes of wrath* of agribusiness did away with small family farmers in imperial California. Agribusiness then turned to the rest of the country. It made the Great Plains of the Midwest (home of Minnesota, Iowa, North Dakota, South Dakota, Kansas, and Nebraska) the nation’s poorest region. Nebraska has six of the poorest twenty counties in the United States. Two of those six, Loop and McPherson Counties, are the poorest in the country with a per capita income of \$ 4,896 to \$ 6,940.

Industrialized agriculture is also striking nature repeatedly with near ecological paralysis and sporadic death. Carl Buckingham Koford, an American ecologist decried, in 1958, the barbaric habit of ranchers, farmers, and government agencies of using powerful toxins like sodium fluoroacetate, a chemical known largely by a number, 1080, to exterminate wildlife. “Aside from killing prairie dogs,” Koford says, “continuous distribution of compound 1080 has had other effects on animal communities. The chemical is extremely toxic and kills other grain-eating mammals, such as cottontails. The poison is stable, even in animal tissue, so that carnivores which feed on poisoned rodents are often killed. Coyotes (**Canis latrans**) have nearly disappeared from the plains because of secondary poisoning. In addition, application of poison brings about a cataclysmic alteration in the relative populations of different mammals, followed by various coactions between species and changes in their effects on plants and soils.”²

A cataclysm is a destructive upheaval, a blotting out of culture and life, an exact metaphor on what industrialized agriculture has been doing to nature and rural society alike. Koford was right. Spreading poison in dog

² C. B. Koford, “The prairie dog of the North American plains and its relations with plants, soil, and land use”, in F. Bourliere (ed.), Symposium: ecology and management of wild grazing animals in temperate zones (Warsaw, IUCN, 1960), p. 340.

towns was annihilation to more than the dogs that ate the poison. Just like rural towns fall apart when their family farmers go under, so does the community of wild animals around a prairie dog town go to pieces when prairie dogs get into trouble. Koford's affection for prairie dogs was the affection of a biologist who understood nature. Rodents, he said, were beneficial species to man. They improved the soil and checked unwanted plants and shrubs. They were food to other animals, and enlivened the scenery. What more could we expect of any animal?

The United Nations Environment Programme described the Dust Bowls of the Great Plains as "the worst environmental disaster in the history of the USA." Yet sodbusting – blasting the fragile prairies of the Great Plains with giant agricultural machinery, ground water from the Ogallala aquifer, pesticides, and cattle factories – continues. It's like the Dust Bowls of the 1930s, 1950s, and 1970s never happened. Cataclysms have never been that far away from the giant tractor. In fact, cataclysms are the inevitable consequence of factory agriculture.

Now mad cow disease and bioengineered crops are shattering all remaining myths of American farming. Conventional American agriculture is no longer family farming but a factory. That factory is becoming the mad cow disease of America's brave new rural world. BSE or bovine spongiform encephalopathy or mad cow disease is a result of factory greed. Cattlemen – eager to earn more money from the meat they "produce" – started adding animal flesh into animal meals, with the result grass-eating animals eating other animals were struck by this most horrible ailment, almost a divine curse, known crudely as mad cow disease. The brain of the afflicted animal becomes like a sponge. The indestructible agent of death drills tunnels in the brain until the animal dies. And humans eating the flesh of such "mad" animals also die from the same excruciating malady.

The mad cow disease is a deadly symptom of a systemic illness in the nature of industrialized agriculture, another cataclysm. This is a global farming system out of control. It denounces autarky, the self-reliance of my father's farming, and eulogizes trade – converting the most productive land of the poor countries of the tropics to gardens for the rich people of the West. For example, Western "consumers" eat fresh beans from Kenya and Gambia in the middle of winter. Trade also means that the subsidized farmers of the Western countries can go on dumping their excess grains and factory food products all over the tropics. Such dumping benefits the few

urban people with cash, but does irreparable damage to the peasants trying to make a living from their cultivation of traditional crops.

Global industrialized agriculture grows soybeans primarily for animals. Fish are turned into powder for pigs. California farmers use more than 5,000 gallons of water to “produce” a pound of edible beef. In fact, livestock farmers in the United States use more than half of the country’s water. Every year the United States imports from Central and South America some 300,000,000 pounds of meat. Yet more than 75 percent of children under 5 years old from Central America go hungry. They are undernourished because their parents are extremely poor and have little if any food.

Bill Mollison, an Australian defender of family farming, is right saying industrialized agriculture is no longer agriculture but a death system, or, in my opinion, a factory of death. It uses agrottoxins and giant machinery to maintain its dominions. It is becoming the conduit for the dumping of America’s toxic waste on farmers’ land. By means of deceptive and corrupt if legal practices, chemical manufacturers and fertilizer companies are selling farmers fertilizers which are mixed with toxic waste laced with arsenic, cadmium, lead, and dioxins. Quite clearly, these illegal toxins, and the countless legal sprays the farmers use on their crops, are not the ingredients we would want to have in the food we eat.

Industrialized agriculture also uses genetic engineering to postpone the end of agrottoxins and, finally, annex all family farmland. Genetic engineering, however, unsettles life at its most primordial origins – in the cell. Moving genes in and out of that enclosure wrecks normal development. Taking genes from a flounder and putting them into a tomato is teratogenesis, the birth of monstrosity in the tomato. This is because the gene transfer tampers with the organization and workings of life itself.

Organic agriculture and family farming

It is because of the political failure of the United States to protect its greatest ecological and democratic pillar, family farming, that organic agriculture takes on so much meaning and significance. More and more Americans eat organic food because they crave wholesome food uncontaminated by toxins, sludge, waste, and genetically-modified organisms. Eating organic food is a political act, however. Many of those who eat organic food dream and see the organic farmer as the “other” family

farmer who could possibly reestablish the American rural character so intimately connected with democratic farming. Organic farming is as ancient as Greek agriculture. Hesiod and my father were organic farmers. But for the purposes of California and the United States which passed laws in 1990 to bring some order in the growing and certifying of organic food, organic farming in the United States is simply a teenager, barely 12 years old. Its farmers do not rely on pesticides in growing their crops.

In 1994 organic farmers used 1,127,000 acres of land for raising vegetables, fruit, herbs, nuts, mushrooms, food crops, livestock feed, cotton, tobacco, nursery plants and flowers. By 1997 organic cropland and pasture included 1,350,000 acres in 49 states. The amount of land for organic crops doubled between 1992 and 1997. Dairy and eggs grew even faster in the 1990s. About two percent of top specialty crops like lettuce, carrots, grapes, and apples were grown under certified organic farming standards in 1997. Yet no more than 0.1 percent of corn and soybeans moved into organic production. The year 1997 was a good season for organic vegetables and fruits. There were more than 49,000 acres of organic fruit and 48,227 acres of organic vegetables in 43 states. A modest number of farmers growing organic vegetables did so on farms which were five acres in size or smaller. There were 600 of those very small organic vegetable farmers in the United States in 1997. America's certified organic land is minuscule in comparison to the acres used for conventional food production, somewhat more than a tenth of a percent of the total agricultural land in the United States. The same truth applies to organic food. Very small amount, but huge significance.

In 1998 organic agriculture made \$ 4 billion while growing at 20 percent per year in the 1990s. In the year 2000 about 18,000 organic farmers all over America sold organic food valued at \$ 7.8 billion. Those sales represented 1 to 2 percent of food sales in the United States and other countries with a commitment to organic farming – Japan, England, Sweden, Denmark, Netherlands, Switzerland and Germany.

Like in conventional agriculture, California has a place of primacy in the emergence and evolution or death of organic farming in the United States.

During 1992-1995, the number of registered and certified organic farmers in California declined from 527 to 517. These few organic farmers cultivated 34,679 acres in 1992 from which they raised food worth \$ 65.9

million. By 1995, California's 517 certified organic farmers used 37,110 acres of land for the production of food that earned them \$ 85.6 million, an increase in sales from 1992 of 30 percent. Less than half of the organic farmers of California – those certified to sell organic food -- cultivated more than 80 percent of the land registered for organic production. They also reaped 90 percent of the profits. Millionaire organic farmers in 1997-1998 represented two percent of the organic farmers but earned more than half of total sales of organic food. In 1998 the number of organic farmers in California increased to 1,533 from 1,427 in 1995. By 2002, there are about 2,000 organic farmers in California. Half of these organic farmers, however, own 5-acre farms, earning about \$ 8,000 a year. Meanwhile, the value of California's organic food was more than \$ 250 million in the year 2000.

In late January 2001, I went to the 21st annual Ecological Farming Conference in Asilomar, California. The most attractive part of this huge gathering was the farm tour. Our first choice was the Sandpiper Farms near Watsonville. What struck me immediately in this operation – I hesitate to call it a farm – was the several trucks, tractors, sprayers, and other machinery all over the place. This is the armament of giant agriculture, not of family or organic farming. At least, I wanted to believe that was the case. In addition, there were two huge greenhouses. A manager named Dan Schmida spoke to us about the strawberry, raspberry, and blackberry varieties he and his staff develop for his company's clients. He said his was not a research station but a land for designer berries for rent. Yes, he said his company "rented" varieties of strawberries, raspberries, and blackberries and other plants to "farmers" who grew these crops for his company. At that moment I remembered Monsanto and I shivered. No one of the 300 or so organic farmers and others listening to him asked how it was possible for a farmer to be a farmer and "rent" his crops. I was stunned. Dan Schmida also spoke of his "organic" strawberries and the beneficial insects his company reared for selling to farmers. The two large greenhouses served that purpose. I took some pictures of the machinery and the exquisite land around the Sandpiper Farms. I only asked Schmida if he did genetic engineering and he said no. I climbed the bus for the second farm thinking of farmers renting their crops. And if farmers rent their livelihoods and receive orders on what to produce and how to produce it, how different are these farmers from the slaves of a plantation, tenant farmers, and America's migrant farm workers? I did not forget this was California, but I did not expect to come so close to raw power so soon -- at an ecological farming conference.

Our next stop was at the Lakeside Organic Gardens of Dick and Bill Peixoto, two brothers farming hundreds of acres in the Pajaro Valley and Hollister. The farm we visited was on the grounds of a school almost next to the Pacific Ocean. The brothers Peixoto explained they grew vegetables with and without agrottoxins. They pointed to fields of organic celery and conventional beans and cabbage very close to each other. But like the Sandpiper Farms, this operation was loaded with heavy machinery. Indeed, from the number of men dressed in boots and blue jeans and carrying cell phones watching us and waiting for orders, I knew we were in the midst of a highly mechanized factory of agricultural production with subsidiaries in the United States and abroad. We could see trucks leaving the property full of the harvested vegetables sold under the owners' brands. The "organic" part of this business was tiny, perhaps five percent, and it served the interests of creating a good reputation – hence the provocative and tempting name, Lakeside Organic Gardens -- besides earning a higher price for its boutique organic vegetables.

In the afternoon, we visited two organic farms – which had the appearance of being both family farms and farms raising their food probably without poisons. First of all, these two farms were only a few acres in size. The first we visited, the Thomas Farm, is on the hilly edge of a wonderful small valley on the Central Coast of California not that far from Santa Cruz. The owner of this nine-acre family farm, Jerry Thomas, explained he has been making a living in the same place since 1971 growing cut flowers, fruits, and vegetables which he sells at farmers markets in Santa Cruz and the affluent towns of the Monterey Peninsula. The gravest threat to Jerry Thomas, and other small family farmers, is the computer wealth of the region that has raised the price of land to extraordinary heights. Computer businessmen pay millions of dollars for converting tiny farms into vacation mansions. I took pictures of the lush and exceptionally beautiful valley where Jerry Thomas earns a living. He said that at the busiest season he employs nine workers.

At our last stop, I took pictures of a couple of roosters, in their colorful plum. Surrounded by three hens, they paid no attention to the sudden humanity that invaded their territory. Yet in this farm, which was very small, I was disturbed by the machinery, most of it wrecked, but spread all over. Two men worked the land to raise organic strawberries. But this field of strawberries did not look any different from the fields drenched with pesticides, all life in the land burnt with the biocide methyl bromide. The

raised land of this organic strawberry farm shined with its plastic cover. No one knew the secrets of plastic and land in this farm. We wanted to believe there was life under the plastic. Meanwhile, the sun was out and setting, the entire valley, sliced by a country road, looked vast and green and flat. Our farm tour had come to an end.

What we know about organic farming in California is not very much or very reliable. The trend toward mechanization is nearly identical to conventional agriculture. The machines of organic farmers are often smaller than those of conventional agribusinessmen. Organic farmers also avoid using machines for the harvest of valuable fruit or vegetables.

Very few large organic farmers, however, make most of the money. That is wrong. These farmers are as mechanized as their conventional opponents or partners. They are large farmers who are replacing pesticides with workers. The danger is that they may become so much like the conventional large farmers that they will bring down the entire organic movement. They are already responsible for the precarious condition of the very small organic farmers earning \$ 8,000 or less who, like the impoverished small family farmers in the conventional sector, have become the other “hobby farmers.” Large organic farmers are cannibalizing each other and the small farmers.

In the organic farming of California, there are also large agribusinessmen who grow some organic food in the midst of their plantations. They do so for money or they are testing the waters for larger production. There are, in addition, people who raise organic food in their gardens for pleasure. Moreover, there are those 5-acre organic farmers, the hardscrabble folks at the Berkeley Farmers Market, for example, who are genuinely trying to make it from their hard work. Sometimes they earn a good living. But, often, they struggle between being hobby farmers and going under.

The successful small or median organic family farmers sell their food through subscriptions to city people. In this way, they have money coming to them throughout the growing season or year while they advance the ecological and democratic purposes of Community-Supported Agriculture (CSA) and educate the consumer on a viable alternative to the agribusiness and fast food model. These farmers also sell food to restaurants, wholesalers, and, above all, they sell food at farmers’ markets. It is there, at the farmers’

markets, like at CSA, that the two divided societies, the urban and rural, come together. Food opens the necessary dialogue to heal the country from the wounds of agribusiness.

Despite the danger of the few large organic farmers, organic farming is a movement. CSA is the political message of this movement. Food is too important to be “produced” by giant corporations. City people must, once again, be part of that sacred process of raising food. Organic farmers are our family farmers. They are fighting to reestablish the tattered democratic links in rural America. They are protecting nature. Some of them are the sons and daughters of conventional farmers who are trying to go back to traditional American values and sustainable agriculture. Above all, they don’t want anything to do with pesticides. They are just a hope away from the nightmare of giant agriculture. But to be successful in the long run, millions of city people must join CSA and increase the number of organic farmers on the land from thousands to millions. Without enough small family farmers in rural America, all power is in the wrong hands. Without enough smallholders on the land, all discussion about democracy becomes academic.

Senator Wayne Morse of Oregon put it best in 1959. “We talk about political democracy,” he said, “but we cannot have it without economic democracy. We cannot have political freedom of choice for the individual without economic freedom of choice for the individual. Therefore, I say again today on the floor of the Senate, if I were to be asked to name one thing – if I were limited to the naming of one thing only – which I think is the greatest guarantee of the perpetuity of our democratic form of government, what I would name would be private home ownership in the city and family-farm ownership in the country. On that type of ownership, I think, is dependent, more than we sometimes fully realize, our whole system of political and economic freedom of choice for the individual.”³

We can support democracy by accelerating the settling of rural America with small organic family farmers. We can do that with the use of the \$ 20 or so billions of annual agricultural subsidies that now go to large farmers. That money would assist exclusively the family farmers who agree to abide by the terms of a social and an ecological contract negotiated by their representatives, the civil society, and the government. Family farmers – with farms which should probably be between five and forty acres and

³ Cited in Goldschmidt, op. cit.

which they work themselves – will agree to raise the country’s food and in return the country will guarantee them a middle class income. Most of the food dollar will be going to them and not to intermediaries for “marketing.” CSA provides the path. The tiny number of organic farmers shows the way. The purpose of the acreage limitation is to increase substantially the number of family farmers in the United States and settle rural America once again. The social contract will define agriculture as food, democracy, culture, and environmental protection. This means that these family farmers, with the effective implementation of agroecological principles, ought to increase and protect biodiversity, cease water pollution, and produce enough food. The food they raise, however, will be produced without violence against domesticated animals, toxins or genetic manipulation and with minimum hazardous inputs.

For me, as for Walter Goldschmidt, with whose work I began this essay, there’s no separating of agriculture from democracy. He who controls the land has a lot to do with the formation of the character of society. That’s why the Greeks insisted that small pieces of land be distributed to the largest number of free citizens in their states. That way democracy was the norm, not the exception. Goldschmidt says that the framers of the American constitution incorporated the Greek model of agrarian democracy in the founding of their republic. That was the philosophy behind Jeffersonian democracy of 1800s, the Homestead Act of 1860s, and the development of irrigation under the Reclamation Act in 1900s. Shifting power in rural America to favor small family farmers would be in accord with these fundamental constitutional principles.

The influence of the new Rome, the United States, was so powerful in the twentieth century that it made the Americas, Western Europe, and much of the rest of the world after its own agribusiness image. My father’s farming went under because American-educated Greek agricultural policy makers funded by America’s cold war money dubbed it backward. If the United States sides with its family farmers, my father’s farming will have proven its resilience.

E.G. VALLIANATOS is the author of two studies on agrarian issues: “Fear in the Countryside” (1976) and “Harvest of Devastation” (1994). He has also written a book on the intellectual origins of the Greek Revolution, “From Graikos to Hellene” (1987). He is preparing a study of Greek history since

the Argonauts. His essays have appeared in the Chicago Tribune, St. Louis Post-Dispatch, Philadelphia Inquirer, Miami Herald and other domestic and international publications.