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The Global Farms Race: Land Grabs, Agricultural Investment, and the Scramble for Food Security

By Michael Kugelman and Susan L. Levenstein. 2013. Island Press, Washington, DC. Paperback, 237 pages, \$25.00. ISBN 978-1-61091-187-0.

Massive transfers of land through long-term leases and to foreign management are taking place around the globe, often at the expense of subsistence farmers and pastoralists who do not have title to their land. National governments, corporations and investment fund managers clearly recognize that productive farmland and fresh water are quickly becoming limited and food will be the most important commodity in world commerce. *Global Farms Race* explores this major phenomenon and delves into the economic, environmental, financial and social implications of foreign control of this vital production resource.

How large is this neocolonial acquisition of land use? Many negotiations are clearly not publicized, but estimates from the International Land Coalition suggest that over 200 million hectares have been leased since 2000, and Oxfam reports a similar figure with most transactions taking place since 2008. This is an area equivalent to all the farmland in Western Europe. Among the ten largest land deals are one that includes six million ha offered by Mozambique to Brazil in 2011, and just over one million ha from Madagascar to Daewoo from Korea in 2009, a negotiation that was suspended due to massive protests that toppled the government. The primary stated reason for leases is food security, and the crisis accelerated during the spikes in food prices in 2008 and again in 2011. More people are becoming aware of this activity as non-profit watchdog groups explore the details and bring them to light. This book is another contribution to transparency.

Over centuries there has been exploitation of other countries' resources, since Roman times, through military occupation and colonialism, absorbing neighboring countries, capture and transport of slaves, or domination of trade. Rapid industrialization in the global North and rising standards of living created demand for food and raw materials, stimulating investment in tropical areas that produced plantation crops of coffee, tea, rubber, and sugar for export. These were often planted at the expense of food crops for local consumption. The current land leases are a result of a "perfect storm" of escalating food prices plus scarce land and water, as well as lax national policies and potential for individual greed. This will only accelerate as incomes rise in first and second world countries where people seek more protein in their diets and a higher degree of food security. It is clear that income and monetary differences are increasing between rich and poor, both within and among countries, and this buying power complicates and reinforces the acquisition of land to assure food supply for those with money. Farmers or pastoralists in developing countries without clear title or other legal possession of their land are susceptible to government decisions that force them from their farming fields, grazing lands and communities.

Direct foreign investment in land that takes this vital resource away from the poor may appear justified in the name of accelerating agricultural modernization and improving farming systems, as well as potentially providing both new jobs and more food. Numerous obvious flaws in this reasoning have been manifest in many such agreements. It is obvious that national or personal interests of investors to supply food to their own countries will take precedent over altruistic motives of improving local development or equity of benefits that includes the local population. Although these financial arrangements may bring needed foreign exchange to local governments or personally to officials, they are unlikely to filter down to the rural population other than providing minimum wage jobs. Most land deals appear to result in even more economic inequities.

What solutions are proposed to alleviate these problems resulting from land transfers? In a chapter on social and economic dimensions, a series of recommendations for national policy emerge:

- Create a national agricultural vision that respects human rights
- Build ecologically sound and resilient farming systems
- Protect the space for local priorities
- Understand complexities of land use and land pressures
- Design investment to fit broad development objectives

These policy initiatives must be coordinated with concerns about environmental impacts of land use changes that influence what crops are grown and the

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management practices that dominate a new agriculture. How will larger field size and reduced biodiversity impact the sustainability and resilience of production? How much of the food produced will stay at home, and how will ecosystem services be affected by consolidation of field and homogenization of the farming landscape? Many of these questions have not been resolved nor even considered by national governments that are in the midst of land use change.

The subtitle of Global Farms Race describes the motives and dynamic nature of this movement: Land Grabs, Agricultural Investment, and the Scramble for Food Security. Editors Kugelman and Levenstein have assembled a series of well-researched studies by highlyqualified experts in economics, policy, finance and the environment. There are useful chapters on Africa, Asia, Latin America and Central/Eastern Europe and Former Soviet Union. The concluding chapter includes recommendations for investors, for host governments and for the international community. There are optimistic projections for how this investment in farming could benefit host countries. But realistic questions are absent about whether this will really happen in a globalized economy, and it is likely that land leases by foreign entities could result in accelerated extraction of food and resources in a new form of economic or agricultural colonialism. The book concludes with useful additional data tables, with web resources, and with specific notes and references to each chapter. This is a valuable chronicle of the current situation in changing land use, and brings together data from multiple sources that are often not easily accessed. It is a timely and useful resource for courses in agricultural development, in economics and policy, and in political science. The data is current, and the analyses put into the context of present challenges especially in the third world.

Submitted by: Charles Francis University of Nebraska – Lincoln

Consulting the Genius of the Place: An Ecological Approach to a New Agriculture

By Wes Jackson. Counterpoint Press, Berkeley, California. 2010. Hard cover, 272 pages, \$26.00. ISBN 978-1-58243-513-8.

"As our minds sweep over the past and back to the present, I want them to center on the natural ecosystems still with us as our primary teachers. They are our source of hope" (p. xi). With his elegant writing and succinct prose Wes Jackson enumerates and describes the problems of industrialized agriculture. Dr. Jackson has sounded a rallying call for farmers to embrace a more sustainable way of producing our food. In *Consulting the Genius of the Place* he synthesizes the evolution of our thinking through his own career as a farmer, geneticist and plant breeder, and presents the case that farmers must pursue a paradigm shift by looking to nature as the measure in all that we do.

In *Some History and Assumptions*, the book provides context to the reader on how the author came to conclusions described in this book. We are reminded that our rapid consumption of the planet's finite carbon resources (soils, trees, coal, oil, natural gas) and proliferation of things we make with those resources are costing us the renewable part of our ecosphere. Renewable systems fueled by contemporary sunlight; filtering air; capturing, transporting and storing water; and recycling nutrients will provide our food security in the post fossil-fuel era. We can ill afford to abuse these ecoservices. The author describes control over nature as the dominant view in our time, a problem we must move beyond to reach sustainability. He maintains that the charge must be led by agriculture.

The foundation of Jackson's thinking comes from personal experiences of his growing years in two distinct ecosystems. In the South Dakota prairie he observed an ecological determinism where ranching systems will not endure if the vegetative structure of the native prairie is not respected. Conventional crop farming techniques introduced into this fragile ecosystem will result in hemorrhaging of ecological capital through loss of sediment from the topsoil, nutrients carried off the land and reduced biodiversity that helps keep a system intact. In contrast, back home in the Kansas River Valley he encountered a more forgiving place for traditional agriculture, with deep and fertile soils, as well as adequate rainfall to produce a crop each year plus the residue in biomass left behind that could sustain a reasonable level of soil fertility for the next year.

In large part through his discovery of the writings of Aldo Leopold, the stark contrasts between human farming systems and natural ecosystems became clearer to Dr. Jackson. He then realized that natural systems were diverse, recycled nutrients, stored water for plant growth, and existed on current sunlight energy, while homogeneous monoculture farming systems produced waste, required additions of fertilizer and protection by pesticide applications and were highly dependent on fossil fuel energy. Here Jackson recognized an unfilled niche in the array of possibilities for agriculture: creating perennial polycultures in nature's image for production of seed and forage. It was a small step to decide that perennial grains and legumes would be the foundation of this new system, and he launched a long-term research program to realize the potentials of this new dream.

Along the way, Dr. Jackson drew encouragement from his friend Wendell Berry from Kentucky - poet, farmer, rural community advocate - who introduced him to the concept of "nature as measure" and how this has a history in human thought. Harmony between humans and nature as a central theme in poetry virtually disappeared with the rise of Romanticism, replaced by centralization of the human mind. Nature as measure did survive with the work of thoughtful practical botanists such as Liberty Hyde Bailey at Cornell and organic farming proponents such as Sir Albert Howard working in India. It is time to revive that tradition, according to Jackson, and form a marriage between the disciplines of ecology and agriculture, two fields that have taken different paths for the last century. In Chapter 3 he makes the case that the earth is a living organism, or a "supraorganism", that is larger than the sum of the components and larger than humans in time and inclusiveness. It is more complexly organized and has greater evolutionary potential and creativity. This realization changes how we must observe and conduct ourselves in the world. Experiments by William Noll at University of Nebraska in 1934 showed that a prairie compared with an adjacent wheat field was far more effective at retaining moisture and regulating temperature, critical elements needed today as we likely move into a period of extended drought. The author contrasts this with the Brazilian rainforest where nature has adapted a way to rapidly transpire and evaporate water into the atmosphere. Following our human desire to exploit success anywhere we would like, even without considering conditions or consequences, we have decided to plant monoculture soybeans in both these locations. Such a practice totally ignores the uniqueness of place and its potentials for unique systems.

Nearly all of earth's biotic community is dependent on carbon as a fuel source, described in Chapter 4. Humans draw from five major finite pools: soil, forest, coal, oil, and natural gas. Although we have been consuming these resources since the advent of agriculture, only in the last 300 years have we substantially dipped into the three pools of fossil fuels. This has accelerated our potential to produce food and to reproduce ourselves, depleting the reserves of non-renewable energy sources and causing major changes to the total ecosystem through global warming. Jackson insists that we must be the first species to practice restraint in resource use in order to assure our own long-term survival.

There is no question that technology combined with our human cleverness has led to fossil fuel-subsidized increases in yields of the major cereal crops over the past century. However, this process has relied on the residual

fertility of the prairie, and has a fortunate coincidence with inexpensive petroleum products and relatively benign and consistent rainfall and temperature regimes. This situation is rapidly changing. In Analyzing the Resistance the author explores why we as a society do not recognize the challenges, continuing to believe what we want to believe, including the massive advertising by input companies that yet another technology will solve everything. He cites the successes of the auto industry as well as the energy industry in resisting regulation and change in spite of the evidence and need for efficiency and environmental protection. In the Great Plains he illustrates the continuation of an extractive mindset and economy brought with our European ancestors that progressed from mining the bison for hides and bones, the grass for cattle, the gas and oil for transportation and farming, the soil for extending crop production into marginal areas and now fossil water to irrigate thirsty crops not adapted to the region.

What are the alternatives? In Consulting the Genius of the Place Jackson examines current systems and contrasts them with what is taught by the prairie. He makes a compelling case for perennials on the prairie, and the opportunities to combine them in polycultures that mimic the native ecosystem. He reminds us that grains are what keep us alive, and that perennial grains when mixed with legumes can help keep the prairie alive as these complementary species provide a resilience that is impossible with monoculture. Jackson discusses the successes achieved over more than three decades with a number of species that now combine relatively good yields with perennialism. One current thrust is to design combinations of species based on ecological principles that will combine grain and forage production and result in economic yields of both. He answers several frequent questions that are raised about such unique agroecosystems, and how they hold potential for the future. He concludes with a proposal for a 50-year farm bill that would greatly accelerate perennial cropping systems research as well as begin a systemic change in agriculture in this country. This link of research with policy is a unique feature of the book, an element that is rarely found in our scientific literature in agriculture.

In summary, we are moved to suggest that for serious students of the prairie who seek ways this ecosystem can be transformed to producing food through perennial polycultures, while maintaining ecological integrity; it would be wise to seek the counsel of a "genius of that place." Author Wes Jackson clearly demonstrates in this book why he was chosen as a recipient of a MacArthur Foundation "genius award" in 1992 for his innovative research and co-founding of The Land Institute near Salina, Kansas.

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The McDonaldization of Society, Seventh Edition

By George Ritzer. Sage Publications, Thousand Oaks, California, U.S.A. 2013. 248 pages, paperback, \$45.00, ISBN 978-14522-22669-9

Few institutions in contemporary U.S. food culture in the U.S. are as well recognized, as successfully franchised and copied, and as frequently reviled as McDonald's fast food restaurants. The expectation of purchasing highly repetitive food seems irresistible to the contemporary consumer in this country. Slick marketing to children through "happy" meals and adjacent playgrounds only adds to success. Customers appear to be both tranquilized and almost fatally attracted to this management model of efficiency, calculability, predictability and control. And many other companies have pursued similar strategies.

Eminent academic and sociologist George Ritzer of University of Maryland celebrates the 20th anniversary of the first edition of his landmark book on U.S. marketing and culture of food with this new seventh edition of his popular book, an articulate commentary on much more than the McDonald's drive-through establishments. To expand on the model, increased efficiency means that a customer arrives, orders, throws money in the window, collects "food," and even carries away the trash. Calculability is determined when a customer knows what they get and about how much it will cost, also convinced that "bigger is better." Predictability is created when a customer visits a new location and is rarely surprised by what they get, whether in Portland, Oregon or Portland, Maine. Control is essential to the management model, and this extends from massive contracts with a few suppliers where the company can exert maximum pressure to lower their purchase costs to the routinized activities of employees delivering the food. Everything is controlled and predictable.

A prominent copycat corporation is Ikea, providing a vast range of furniture and other items for the house that appears to fully embrace McDonalization. Efficiency is built into the system to benefit the corporation by small number of employees needed to run the stores. Calculability is in the customers knowing the exact process to obtain the goods offered for sale. Predictability is anticipating that all items will be available in flat boxes ready to load into the family hatchback or SUV and will be easily assembled with a simple Allen wrench. Control is exercised by funneling customers through a warehouse-style big box store where they are exposed to hundreds of additional items displayed in a cozy and friendly room-style arrangement that provides attractive context and incentive to buy before ever reaching the registers to pay. The approach is compelling, and will certainly be copied by others.

To further explain how the industrial process deals with employees, author Ritzer likens workers to robots and describes their transformation from highly-skilled specialists to cogs on a production line. Butchers were respected and well paid, but today's low-skilled workers on the meat line repeat the same job thousands of times per shift. This Henry Ford assembly-line model makes each job as simple as possible, thus requiring little investment in training. Extended to housing, carpenters move from site to site performing simple and repetitive tasks and that is all they do.

In a nauseating description of the Holocaust, the same principles of efficiency and repetition were applied to a mass extinction of human life. A gripping account of Nazi experiments recalled how they discovered that bullets were not efficient, and that grouping people in closed chambers and applying poison gas was more cost-effective. Victims were dehumanized, and massive numbers of people were eliminated as quickly as possible in routines that today seem unimaginable. It is difficult to read, but this account of perverse human behavior provides an unforgettable example of one consequence of the industrial model.

Close to home for academics is the description of higher education as a McDonalized system. From design of classrooms to delivery of information, then on to evaluation Ritzer describes the evolution of testing systems. Universities originally required oral examinations to help professors determine the amount of information students had gained during the class, assuming that this lower order metric was most important in learning. As number of students increased, the use of essay questions became more widely used. This allowed each instructor to have larger classes and test students more quickly. Even this became prohibitive with everlarger classes, and testing moved to multiple choice, true/false, and short answer questions where students recorded their bubble sheets in a "factory-style" mode of evaluation. This way a large number of students could be "processed" as efficiently as possible. Calculability allowed the instructor to know how long grading would take, and predictability allowed students to anticipate the form of exams. Instructors exerted control over the entire class and his/her own schedule by reducing the

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amount of time required to prepare and grade exams. Current textbooks for large classes now come with pre-designed pools of questions that can be quickly assembled, and just as quickly changed each semester to avoid the dangers of students preparing for exams entirely from fraternity test files. The applications of this "modernization" to the academic process certainly stimulate us as concerned educators to dedicate more time to envisioning and testing higher-order learning and how this can be effectively evaluated in an era where accumulation of student credit hours continues to be a modal but misguided metric for assessing effectiveness of a teacher's performance.

The same themes are applied to much of modern U.S. culture, from the cookie-cutter motel chains that provide a promise of clean beds, friendly people at the front desk, and plastic food masquerading as "free breakfast" to the ubiquitous shopping malls that present a sameness of appearance from coast to coast with the same shops providing the same merchandise. Even childbirth has become McDonalized, since more physicians than midwives now deliver babies, and Cesarean sections are indiscriminately used for convenience of doctor and mother. Even gender can be determined through sperm screening, thus increasing likelihood of the desired sex of the next child. The multiple examples provided through the book include contemporary parallels such as Starbuckization and eBayization, updates in the new edition that make this book meaningful to the current generation of students.

Some antidotes to McDonaldization are suggested with advice on how to counter this current trend. When traveling, the author recommends seeking locallyowned bed and breakfast alternatives that are family-run and cycle most revenues within the community. Owners often live on the property, and have a personal touch. They can recommend nearby locally-owned restaurants whose owners share their philosophy and dedication to the local economy, including slow-food establishments that may serve food produced nearby and demonstrate concerns for the environment. He further suggests avoiding large chain-style companies of all types, using cash for purchases, watching as little television as possible, and avoiding routine in one's everyday life.

The McDonaldization of Society in its several editions has been translated into more than a dozen languages, and hopefully has exposed the negative extremes of this model to a wide international audience. George Ritzer is a prolific author of several key texts and popular books on sociology, as well as the editor of the *Encyclopedia of Social Theory* and the *Encyclopedia of Sociology*. His book is highly recommended to thoughtful readers, young and old, as an exposé of the downside of our present consumer society as well as insight on how to avoid the standardization that is coming with globalization.

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