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Toward a Transnational, Trans-1978 History of Food Politics in China: An Exploratory Paper

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In 2011, Li Changping, celebrated champion of the New Rural Reconstruction movement in China, wrote an open letter to "father of hybrid rice" Yuan Longping, entreating him to "give peasants back the right to freely select seeds." The letter was picked up by numerous newspapers and continues to be widely available on state-sponsored and activist websites. Li denounced "geneticists and seed-industry capitalists" for pursuing "monopolistic profits by doing everything possible to exterminate peasants' conventional seeds." He related his experience attempting to purchase seed from a supply company and finding it impossible to buy "a single grain of conventional seed"; they were all "death-without-progeny" (断子绝孙) seeds.[1] Li went on to enumerate a set of concerns—food security, environmental protection, peasant livelihood, and respect for indigenous knowledge—that should be familiar to people around the world who pay attention to the politics of food and farming, especially those active in the "food sovereignty" (食物主权) movement. Li closed his letter by appealing to Yuan as a "serious scientist" who, unlike government officials and many others in the world of science, should be capable of "climbing down from the speeding chariot of commerce."[2]

An example of such a scientist might be Jiang Gaoming (蒋高明), botanist in the Chinese Academy of Sciences and currently vice-secretary general of the Chinese division of UNESCO's Man and the Biosphere Program. Jiang maintains a blog, "Telling Right from Wrong" (明辨是非的博客), and his articles have been circulated on numerous activist websites (including Chinadialogue.net and the currently suspended site Utopia), and, less frequently, in state media (his most recent *People's Daily* article was in 2013). Over the last decade, he has taken political stands on issues including desertification, monoculture, pesticides, and GMOs. Like Li Changping, Jiang is critical of scientists who profit from the development of agricultural technologies.[3] Also like Li, Jiang has been active in pursuing what the state calls "building the new socialist countryside" (建设社会主义新农村) and what leftist academics have called the "new rural reconstruction movement" (新乡村建设运动): in 2006 Jiang established the "Hongyi Organic Farm" in his home village of Jiangjiazhuang, in Pingyi County, Shandong.[4] And, again like Li, Jiang finds inspiration in the Maoist past to address the "threefold" rural crisis (三农问题) that confronts China's countryside, agriculture, and peasants (农村、农业、农民) today.[5]

This paper is an effort to trace the complex strands of contemporary Chinese "food politics." Food politics tie together (though by no means neatly) the public's desires to consume food identified as safe and wholesome, farmers' struggles to identify reliable inputs and navigate new market conditions, the state's concerns over how Chinese agricultural products will sell in Western countries and how foreign agricultural inputs and products will affect Chinese industries, and efforts among academics and activists to preserve "traditional" or "indigenous" forms of agricultural knowledge.

The entanglements that constitute contemporary Chinese food politics could not be mistaken for those of an earlier era. They emerge from China's changing position in a global capitalist economy, from the rise of a "middle" or "consumer" class in China, and just as importantly, from transnational currents in the social sciences, development organizations, and activist networks. However, beneath that complex web of national and transnational actors, the Mao-era past lies like a layer of soil deposited decades ago by people pursuing a different set of ideological priorities, political practices, and technological commitments. Some today—like Li Changping and Jiang Gaoming—actively turn the soil to bring up the Maoist layer. But many more quietly draw up its nutrients without disturbing the historical stratification that keeps the pre-1978 history in its place.

In this paper I seek to trace the roots of contemporary Chinese food politics in the radical Maoist past. The challenge is to accomplish a simultaneously transnational and diachronic account so as to recognize: first, that China in the Mao era was part of a larger world; second, that the politics of the Mao era continue to exert an important influence today, though in ways that are highly mediated and often transformed almost beyond recognition; and third, that, of the many transnational currents influential on contemporary China, some grew out of an earlier global political culture in which Maoism played a crucial role.

The pieces are coming together to make such a study possible. The transnational turn in history has changed the way we think about Mao-era China, including Mao-era Chinese science. We no longer just critique the idea of a nation isolated behind a bamboo curtain; rather, we know more and more about the actual ways that people moved ideas, materials, and practices across national borders. Scholars have explored the system of Soviet advisors in the 1950s, both its significance for Chinese scientific institutions and what the Soviets learned from their hosts.[6] Zuoyue Wang is building our understanding of the Chinese scientists who made US science more transnational, and those who carried US scientific knowledge and practices back to build socialist

China's scientific institutions.[7] Danian Hu is showing the significance of transnational context even for what we have usually thought as the most isolated and ideological Mao-era campaigns, such as the criticism of Einstein and relativity.[8] Deborah Brautigam and Jamie Monson have analyzed Mao-era efforts to transfer to African countries not only specific technologies but scientific epistemology based on self-reliance and mass mobilization.[9] In his study of Sino-Indian scientific relations, Arunabh Ghosh is showing us that these "south-south" interactions involved not only Chinese tutelage of the Third World but also Chinese interest in what other Third World countries could offer. Meanwhile, recent years have seen a burgeoning scholarship in the global meanings of Maoism for intellectuals in the West and revolutionaries in the Global South.[10] And Michael Hathaway's investigation of the "environmental winds" that shift between East and West encourages us to recognize the significance of Chinese participation in the global currents that have supported environmental conservation efforts in China and around the world.[11]

Despite all of this excellent research, we have a long way to go. History is an enormous subject, and the gaps in our knowledge can be staggering. Beyond such gaps, a larger challenge is to account not only for flows across space, but also for flows across time.[12] Decades ago China scholars strove to break down the "1949 divide" that prevented us from seeing continuities between the republican and socialist eras; more recently, Yiching Wu has urged us to tackle the "1978 divide" so as to understand the relationship between the socialist and post-socialist eras,[13] and the contributors to Elizabeth Perry and Sebastian Heilmann's 2011 collection *Mao's Invisible Hand* have explored some of the many areas in which such legacies can be felt.

The 1978 divide, like its predecessor, is so formidable in part because of political interests in keeping the past buried. But when we add space to time, a further, and perhaps more analytically challenging, difficulty emerges. China as a transnational subject has changed tremendously over the last sixty years: the China of the Mao era and the China of today are radically different both in the meanings "China" has carried for people around the world and in the scope for foreign influence within China. The global influence of socialist Chinese science in the Mao era and the increasingly globalized science of contemporary China do not seem to belong to the same story, but they *are* part of the same story and need to be accounted for in a single historical analysis.

This is an exploratory paper launched from questions I introduced in the epilogue of my new book, *Red Revolution, Green Revolution: Scientific Farming in Socialist China* (Chicago, 2016). The book is about the intersection of technocratic and radical politics in socialist China's combination of "green" (that is, agricultural) and "red" (that is, communist) revolutions; the epilogue provides just a taste of the legacy of those experiences. In this paper, I move in the opposite direction. I begin from three places in the complex web of contemporary Chinese food politics and dig down from each of those to explore the historical layers that feed them. The paper's three sections will trace the transformations and continuities "From Self Reliance to Food Sovereignty," "From Mass Science to Participatory Action Research," and "From Native Methods to Indigenous Knowledge."

From Self Reliance to Food Sovereignty

Li Changping's letter to Yuan Longping was just one of many essays Li has written on the politics of food and farming. Although he is by no means the only one speaking on these issues, his writings carry the weight of his name recognition—he is the local cadre who in 2002 famously "told the truth to the prime minister" about rural China's plight. Continuing in this provocative style, Li has since then highlighted what he calls the "weaponization of agricultural products" (农产品的武器化) by the US and other developed nations, and he has called for China to "make every effort to self-reliantly safeguard the security of its food sovereignty, and at the same time maintain a high alert for developed countries taking advantage of China's weakness to implement a war of 'agricultural products weaponization' and invade China's food sovereignty."[14] In an article that won applause from Jiang Gaoming, Li has specifically targeted the role of biotechnologies in this phenomenon:

> The most immediate danger with respect to the security of agricultural products is the self-colonization of seeds—that is, the Americaniza-tion, hybridization, and GMO-ization of seeds... Local governments aren't overseeing it; officials, scientific research departments, and business executives are just out for profit and are letting the wolf into the house. Peasants don't know whether seeds are hybrid or GMO, and for miniscule profits they are compelled to give up their own seed sovereignty and food sovereignty. Consumers are even less aware of whether what they're eating contains GMO products. At this rate, the Americanization, hybridization, and GMOization of seeds will only take about ten years. In 1840, when opium entered China, there were some officials who resisted. The danger from American hybrid and GMO seeds is more than 100 times greater than that from opium, but apparently not one official is resisting.[15]

As this passage suggests, the connections or even slippages between state and public interests in the arena of food politics are very strongly pronounced, perhaps even more so in China than elsewhere. A convenient entry point for exploring these entanglements is the cluster of terms: food safety, food security, and food sovereignty. All three of these concepts are at work in the excerpt from Li Changping just shared; if despite the efforts of activists and academics to maintain the distinctions among these concepts, they nonetheless appear somewhat muddled, that perhaps accurately reflects the complicated political relationships among the actors involved.

"Food safety" is primarily a concern for consumers, though of course the state becomes implicated when consumers lose confidence in their food sources. In the United States, the food safety movement has clear roots in the early twentieth-century response to Upton Sinclair's novel *The Jungle*, which exposed labor and sanitary conditions in unregulated meatpacking plants, but the specific term did not

gain currency until the late 1950s with the introduction of the Food Additives Amendment to the Federal Food, Drug, and Cosmetics Act.[16] Sinclair famously despaired of the public reception of his book, which had been intended as a call for justice for immigrant labor but which in fact stirred concern among consumers about the quality of the food they purchased. Today, activists continue to tap the ready well of consumer worries about food safety, and continue to struggle to broaden that consciousness to include justice for workers in the food and farming industries.

"Food security" is primarily a concern for state actors: it signifies the reliable supply of food in quantities sufficient to feed populations. It is most often taken to refer to global food supplies and so is typically framed as a humanitarian issue, but as with the larger history of food aid and agricultural development assistance, national interests are never very far from the table.[17] Although the larger politics of food security are very much a part of Cold War history, the specific term gained currency only in 1973, after the United Nations Food and Agriculture Organization began promoting the "Boerma plan" to stockpile food supplies and so maintain a "minimum level of world food security," which further prompted a pivotal US congressional hearing titled "World Food Security: A Global Priority."[18]

"Food sovereignty" is a term often credited to La Via Campesina (The Peasants' Way)—a coalition that began in 1993 and now boasts member organizations from 73 countries, including Taiwan but not China. According to the organization's website, it first brought the concept of food sovereignty to the public at the World Food Summit in 1996, and its widely reproduced definition of the term states, "Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through sustainable methods and their right to define their own food and agriculture systems."[19] Where "food security" suggests an effort to maintain stability in existing state power relations, "food sovereignty" very consciously evokes anti-colonialist movements. And so, even as it adopts the localist language of current progressive politics (and seldom is localism stronger than in food politics), the food sovereignty movement shares with other forms of anti-colonialism a willingness to reinforce the agency of state authorities in developing nations when they seek to protect their economic and political interests from the intrusions of global powers.

In Chinese, the relevant terms are just as mutually resonant and considerably more slippery. 食物安全 has been used for both "food safety" and "food security." Somewhat less ambiguous are the terms 食品安全 for food safety and 粮食安全 for food security. "Food sovereignty" has been translated by Chinese activists as 食物主权 or 粮食主权—the homophone of the last syllable (quán, for both 全 or 权) makes this term at least as satisfying as the common "s" sounds in the English and Spanish word clusters. All of these terms are postsocialist phenomena in China: their significance is a product of the specific conjunction of consumerism, post-Cold War geopolitics, and anti-globalization struggles. The web of social actors and cultural signifiers becomes still more complex when we attempt to account for change over time.

Of the three terms, food safety is certainly the least embedded in Mao-era discourses. This is not to say people in the Mao era had no concerns about the wholesomeness of the food they ate. People were known to make things difficult for local cadres when the state attempted to replace traditional grains with new, higher-yielding varieties that did not satisfy cultural expectations about taste and nutrition.[20] Undoubtedly such "consumer" concerns were more widespread than was documented in archival, much less propaganda, sources. But of course, as long as the quantity of food remains uncertain, food quality—including even food safety—is far less salient. Moreover, the notion that consumers should have the right to make individual decisions about the safety of their food—or even that they have highly individualized bodies with particular food sensitivities and thus the physical need to make such choices—was incompatible with Mao-era political ideology. It is thus not surprising that where "safety" was coupled with "food" in Mao-era sources, it typically referred to safely storing food so that it would not be plundered by animals or otherwise destroyed.

However, when it comes to "food security" and "food sovereignty," the Mao-era past is of critical significance for an understanding not only of contemporary China but of the globe. In particular, what we need is a transnational history of self-reliance (自力更生), a global discourse and policy phenomenon in which China played one of the most important roles. The concept of self-reliance has a complex history that spans political ideologies. In the 1930s, it was adopted not only by the Chinese Communist Party, but also by the Guomindang and by the Saito government in Japan.[21] At the same time, the Indian independence movement had adopted the economic policy of *swadeshi*, which can be translated as "self-sufficiency" or "self-reliance." More broadly, we can say that self-reliance is of obvious importance in the history of anti-imperialist struggles and development strategies of Third World nations. Self-reliance is well known as a cornerstone of North Korean leader Kim Il-sung's political philosophy, probably because of the influence of the CCP in its Yan'an years on early Korean communism.[22] Many other groups around the world—from socialist nations in West Africa to the Black Panthers in the United States—have similarly been inspired by Mao's writings on self-reliance. (And many have been inspired by Gandhian *swadeshi*... the complexities in this transnational history are begging for full treatment by some energetic global historian.)

Central to self-reliance in developing countries is food (and especially grain) self-sufficiency. This goal was by no means invented by the Chinese communists. The Soviets under Stalin pursued a policy of being self-sufficient in grain; Khrushchev hit the decisive nail on that coffin in 1963 when he signed a deal with John F. Kennedy to import US wheat.[23] China's difficult relationships with the two major Cold War powers made self-sufficiency still more appealing as a policy: while other aspects of Maoist ideology (including rhetorical use of the term "self-reliance") became tempered in the wake of the Great Leap famine, the emphasis on grain self-sufficiency if anything gained strength from the experience of devastating food shortages.[24] The goal of self-reliance has,

moreover, commonly been linked to science and technology: self-reliance has been portrayed simultaneously as a means to achieve, and an outcome of, scientific and technological development. Chinese emphasis on what I have elsewhere called "self-reliant science" served as an inspiration for people not only in the Third World but also in developed countries.[25] In India too, self-reliance and science have been closely linked, as evidenced in Indira Gandhi's addresses to the Indian Science Congress Association in the 1960s and 1980s, collected under the title *Indira Gandhi on Science, Technology and Self-Reliance*.[26]

Self-reliance and self-sufficiency policies could cut many ways. For American proponents of the Green Revolution, helping Third World countries achieve grain self-sufficiency was a means of securing them against political revolution or dependency on international socialist solidarity. For the Chinese state and some of its socialist-state friends in the Third World, advocating local self-sufficiency was often a way of discouraging communities from expecting too much material support from the central state.[27] For local state agents in China, the discourse of self-reliance could even be turned around to shield communities from the imposition of centrally promoted technologies that did not "suit local conditions."[28] However, the larger geopolitical resonance of Maoist self-reliance lay in its anti-colonialism. A perfect example is China's most ambitious technology-transfer project: the TAZARA Railway, which linked Tanzania and Zambia, bypassing apartheid South Africa. The project, initiated in 1967 and carried out between 1970 and 1975, exported not only China's scientific know-how but also its philosophy of self-reliance. Similarly, in Liberia, Sierra Leone, and the Gambia, agricultural assistance from China emphasized this theme. The president of Sierra Leone returned from a visit to China inspired by the rhetoric on self-reliance, while Chinese experts in West Africa supervised the production of locally made rice threshers, demonstrated composting and use of animal manure for fertilizer, and raised chickens and pigs to feed themselves, all the while calling attention to these activities as examples of self-reliance.[29]

It is a sign of just how powerful the neoliberal model of globalization has become that calls for national policies in support of food self-sufficiency are no longer necessarily seen as supporting US geopolitical interests, as was the case in the Cold War era. What is alarming to neoliberals today, in the words of a 2009 editorial in *The Economist*, "is the move from 'food security' towards 'food self-sufficiency' as a goal of national policy. The first means ensuring everyone has enough to eat; the second, growing it yourself... This shift towards self-sufficiency coincides with growing skepticism about world trade, examples of price controls and more extensive government involvement. The FAO has even suggested the shift may amount to 'a change of paradigm' in farming."[30] While the article does not mention "food sovereignty," the priorities of this movement are clearly inscribed in the shift from "security" to "self-sufficiency"—and indeed the 2008 report from the International Assessment of Agricultural Knowledge, Science and Technology for Development (initiated jointly by the FAO and the World Bank) references "food sovereignty" throughout, with just a single "reservation" expressed by representatives from the United Kingdom that there was "no international definition of food sovereignty."[31] Perhaps even more tellingly, "self-sufficiency" now necessarily implies a challenge to corporate globalization. During the Cold War, US geopolitical interests were thought to be served by bolstering self-sufficiency in poor countries (and providing stop-gaps in the form of food aid while those capacities were being built); in the era of neoliberalism, US geopolitical interests are thought to be served by discouraging self-sufficiency and any other barriers to full integration in globalized markets. Thus, the current geopolitical situation has produced a context in which self-sufficiency necessarily inherits the legacy of Maoist politics, even as Maoist self-reliance is no longer a reference point for global activists—even in many Chinese political circles.

One of the most obvious places to examine the unfolding of these issues in contemporary China is the controversy surrounding GMOs, already referenced in the Li Changping quotation above. The breadth and intensity of public opposition to GMOs in China is somewhat surprising. Generally speaking, the benefits of technological "development" are far more widely accepted and the concept of scientific "progress" subjected to far less critique in China than in Western countries. Moreover, there are risks far more certain and tangible than those posed by GMOs that Chinese people face in their food supply every day, from poisonous additives in milk, to contaminated "gutter oil" in restaurant dishes, to rice that isn't rice at all but potato starch and plastic—not to mention the environmental risks posed by air and water pollution. In such a climate, one might think GMOs would represent a concern too abstract to generate much attention.

How, then, did the Chinese public become sensitized to the potential dangers of GMOs? Without shortchanging Chinese people's ability to develop independent perspectives or the very significant influence of global food safety discourses, we need to account for the PRC state's role in producing public skepticism about GMOs. The position of the PRC state with respect to GMOs has been somewhat ambiguous. On the one hand, China is applauded by activists abroad for having effectively restricted the spread of Monsanto GM seeds and for enacting a labeling law to allow consumers the "choice" of whether or not to purchase foods produced with GMOs.[32] On the other hand, China has been pursuing transgenic technologies and seeking to develop its own GM foods since the 1980s, and in 2001 a confidential State Council report stated unequivocally, "GM organisms do not pose a higher risk than varieties bred through ordinary breeding. The greater risk lies in a state that neglects to use these powerful techniques in order to solve the daily increase in food demand... China should not accept being controlled by others."[33] The strong state support for GM foods combined with China's relative slowness in adopting GMOs suggests the power of public opinion on this issue.

But how did this opinion emerge? Chinese people increasingly have access to oppositional voices on the web, and as I will discuss below, Chinese activists are engaged in transnational networks that oppose GMOs. However, looking back through *People's Daily* coverage of GM foods since the

late 1990s, it is clear that even if people had been exposed only to such state-sponsored press, they would still likely have developed a negative perspective on GMOs. The Chinese newspaper-reading public was introduced to GM foods through articles on international debates around their safety and the rights of nations to restrict imports—in particular the differences between European and North American perspectives on the development and trade of GM foods. At that time China was in the process of gaining entry to the WTO, and the PRC state was concerned about the international marketability of Chinese agricultural products in Europe, and also the ability to protect Chinese agricultural industries from Monsanto and other international agricultural giants. This was the focus of early articles in *People's Daily* on GM foods—including reporting on the Seattle WTO protests—and the overarching sense they conveyed was that GM represented an uncertain, hotly contested, and potentially very dangerous technology.[34]

One of the more curious characteristics of PRC state discourse on GMOs is the emphasis on consumer choice, since it represents one of the most individualist (I am tempted to say "bourgeois individualist") aspects of the market economy. This focus was apparent already in a 2000 *People's Daily* article titled "Are GM Foods Good to Eat?", which quoted Pamela Chan (Chen Huangsui, Chief Executive of the Hong Kong-based organization Consumer Council and then-president of Consumers International) on the importance of labeling so that consumers can "know clearly whether or not the food contains GMOs and decide for themselves whether or not to choose this type of food."[35] The consumer's "right to know," reflected in strict labeling regulations, was enshrined in laws passed in 2001 and 2002 governing the production and sale of GM foods.[36] These laws have provided room for activists to maneuver, as in 2003 when Greenpeace sponsored a Chinese plaintiff to sue Nestlé for failing to label GM ingredients in products sold in China (though they lost the case).[37]

On the surface, a discursive emphasis and proactive legislation on consumer rights is not what we might expect from an authoritarian state committed to maintaining a significant role for central planning in the economy. Yet, looked at from other angles, the phenomenon is less surprising. Others have noted that an assertive stance on GMOs at the turn of the millennium allowed the PRC state to achieve protections for Chinese industries and play its cards carefully in European markets as it prepared to enter the WTO. Whether this strategy was cynically cloaked in the mantle of environmentalism or represented a convenient marrying of diverse interests among state leaders remains a matter for interpretation.[38] Framing the issue as one of consumer choice provided, perhaps ironically, added legitimacy to the notion that China needed a strong state capable of intervening in industry. First and foremost, the new technologies could be characterized as potentially dangerous and so demanding of a high level of responsibility from the state to control and protect Chinese people; and second, the Chinese people could themselves be portrayed as clamoring for a state that carefully manages economic, political, and technological complexities.

However, the PRC state is by no means the only, or even the most significant, contributor to discourse on the politics of food and farming. Rather, academics and activists are building networks that sometimes dovetail with state policies and campaigns, but simultaneously strengthen oppositional voices. These networks find venues in state media like *People's Daily*, in academic journals, and most voluminously on the Internet, which as Yuezhi Zhao has argued, has "revived the Maoist populist legacy" and has "become an unofficial forum for the expression of socialist ideas and anti-capitalistic sentiments in contemporary China."[39]

Support for the concept of "food sovereignty" can be found in Chinese academic journals. A striking example is a 2012 article by Zhou Li (an economist at Renmin Daxue's School of Agricultural Economics and Rural Development, key hub for research and advocacy along the lines of the "three rural" [三农] paradigm) and two of his graduate students. The article is titled "From 'Who Will Feed China' to 'How to Feed China': The Attributes of Food, AB Modeling, and Food Sovereignty in the Age of Developmentalism."[40] It takes as its launching point a book by noted environmentalist and sustainable development advocate Lester R. Brown, *Who Will Feed China?,* which raised hackles among Chinese political and intellectual leaders after its release in 1993 because of the implication that China was not capable of self-reliance in feeding its population.[41] Like many others writing on food security and food sovereignty, including Li Changping in the article quoted above, the authors use Henry Kissinger's infamous 1970 quip, "Control oil and you control nations; control food and you control the people" as a reminder that food can become a weapon. (Refreshingly, they depart from Li Changping's apparent willingness to embrace the weaponization of food for China's benefit and instead declare that "food should not be treated as a weapon.") The authors bring food security, safety, and sovereignty together in what they term a "triangle" that represents three important forms of "state security" (国家安全). They further organize the three terms into distinct stages: first is food security, which is a quantitative issue of having enough to feed the population (吃得饱, or being able to eat until full); second is food safety, which is a qualitative issue of having good food to feed the population (吃得好, or being able to eat well); and third is food sovereignty, which is an "over-all security" (综合安全) issue, which they refer to as "the ability to eat" (吃得起), and which they further suggest encompasses the rights of producers and consumers to make their own decisions (自主权), bringing together "the people's production and sustenance sovereignty" (人民的生产以生存主权) with "state sovereignty" (国家主权).[42]

Attention to food sovereignty has not been limited to academic journals. In 2013 mainstream news magazine *South Reviews* (南风窗, a subsidiary of Guangzhou Daily News Group) tackled the issue from both the consumer and the producer's perspective in a widely reposted article by Hong Kong sociologists Yan Hairong and Chen Yiyuan, titled, "Looking at Food Sovereignty from the Perspective of the Soybean Crisis." The problem of soybeans—and specifically

the rising imports of soybeans from the US into China—has become emblematic of the major conundrums of food geopolitics in recent years. As Chinese consumers eat more meat, the demand for soybeans as pig feed has increased, and in the globalized economy US agribusiness has rushed to meet that demand by selling at low prices that Chinese producers cannot match, which in turn has increased the acreage of US fields devoted to soybean monoculture, a concern for environmentalists and food justice activists in the US. The authors boldly propose: "The Chinese soybean crisis has already been seen in many media reports, but most discussions are still about the 'method' and not about the 'path.' China's emergent soybean problem is a problem of peasant livelihood dominated by capital, a problem of lack of consumer rights, and a problem of lack of state sovereignty. This is not an experience unique to China, but is rather a common dilemma for the world's developing countries and their rural people. The 'path' out of this dilemma lies in the realization of people's food sovereignty." After addressing problems of monoculture, questions about GMO safety and lack of consumer choice, the irony of corporate organic farming encroaching on the sovereignty of "genuine laborers," Italy's "slow food movement," the activities of the International Women's Democratic Federation in Taiwan, and a number of other threads in the sprawling tapestry of food politics, the authors introduce La Via Campesina—in Chinese, 农民之道, or "The Peasants' Way." It proclaims, "The movement's main goals are realizing food sovereignty and stopping the destruction wreaked by neoliberalism. The movement also believes firmly that producers in farming, animal husbandry, and fishing and also indigenous people not only can achieve self-reliance but also can use sustainable methods to supply the world's population with sufficient and healthful foods."[43]

It is deeply significant that such articles appear in state-authorized media like academic journals and news magazines. It is just as significant that Chinese "netizens" are reading and contributing to unofficial websites devoted to providing critical commentary from leftist perspectives. The most important of these for our purposes is the site "People's Food Sovereignty" (http://shiquzq.com, of which Yan Hairong is a founder), but many others—including "Groundbreaking" (http://www.groundbreaking.cn/), "Grassroots" (http://www.caogen.com/), and "Utopia" (http://wyzxwk.com/, currently suspended)—have also addressed the politics of food and farming, including in articles on food sovereignty. Articles by Zhou Li, Yan Hairong, and Chen Yiyuan—among many other leftist academics—frequently appear on such sites. In the embrace of food sovereignty movement by leftist Chinese academics we can see clearly the influence of transnational activist networks that grew out of earlier movements in which Maoism played a crucial role, even as political conditions continue to prevent Chinese activists from participating as fully as they might want. Ironically, La Via Campesina has no member organization in China, whose peasant revolution did so much to inspire the notion of a "peasants' way" around the world and whose emphasis on "self-reliance" influenced anti-colonialist movements throughout the Third World and in the "belly of the beast" itself. The next section takes up a subject more confined to academia, but where the influence is perhaps even more vivid.

From Mass Scientific Experiment to Participatory Action Research

One of the signature elements of Maoist approaches to scientific research was the insistence on mobilizing the masses. Today, with Maoism widely relegated to history's dustbin, propaganda accounts of such activities ring hollow—or at best perhaps chime quaint. Yet Chinese social scientists are eagerly adopting the theory and language of a transnational academic field known as "participatory action research" that itself emerged out of the 1960s and 1970s global radicalism in which Maoist political philosophy and epistemology played a crucial role. The influence of Maoism—and indeed the place of China more broadly—in Chinese writings on participatory action research is if anything less well articulated than it is in writings on food sovereignty. Maoism is clearly present, audible in the discourse to the point that it seems to demand acknowledgment, and yet almost entirely ignored.

I have found no better example of this phenomenon than the (if I may say it) deeply inspiring work of a transnational group of agronomists and social scientists who have adopted participatory action research methodology to organize the Participatory Plant Breeding project in maize-growing villages of Guangxi.[44] The researchers hail from a number of Guangxi-based institutions in addition to the Center for Chinese Agricultural Policy (农业政策研究中心) of the Chinese Academy of Sciences and the Canadian government's International Development Research Centre. They seek to model a new kind of agricultural research and extension system that brings farmers, extension agents, agronomists, and social scientists together with the joint goals of protecting the environment, creating better crop varieties, and improving rural people's livelihoods. And indeed in important ways what they are doing *is* very new; but in other, unacknowledged ways, it is deeply resonant with Mao-era precedents—especially the Mao era's emphasis on mass mobilization and anti-elitism, and still more specifically its "rural scientific experiment movement," which sought to bring old peasants, cadres, and young people with technical knowledge together into productive partnership.

A 2006 article written by Chen Tianyuan and Huang Kaijian, collaborators in the Participatory Plant Breeding project who hail from the Guangxi Maize Research Institute, reads like translations of Maoist discourse into the language of postsocialist, transnational, environmentalist social science. They call for localities to cultivate "indigenous knowledge" (乡土知识) and "peasant experts" (农民专家), for scientists to "learn modestly from peasants," and for science to "be put into practical use" and to "serve production." Consistent with critiques articulated during the Mao era, they criticize conventional, ivory-tower agricultural science for being divorced from the needs of the peasants and production, for its tendency to impose inappropriate technologies on communities from above, and for its failures to recognize the knowledge that rural people possess.[45]

This was the form that agricultural research allegedly took under capitalism and imperialism, and it was what the socialist

Chinese state sought to avoid through the development in the mid-1960s of the "rural scientific experiment movement" (农村科学实验运动), which drew inspiration from Mao's 1963 declaration, "Class struggle, the struggle for production, and scientific experiment are the three great revolutionary movements for building a mighty socialist country."[46] Rather than proceeding from the top down, the scientific experiment movement was to depend on grassroots "scientific experiment groups" organized throughout the countryside on a "three-in-one" basis: "old peasants" with practical experience, "educated youth" with revolutionary zeal, and local cadres with correct political understanding would work together to identify needs and develop solution. [47] Propaganda encouraging young people to participate in the rural scientific experiment movement proclaimed, "For educated youth, going to the countryside isn't the end of the study mission but rather the beginning of an important educational stage. The countryside is another big school, the poor and lower-middle peasants are our excellent teachers, and scientific experiment is one of the courses in this big school."[48] Those who failed to learn from the peasants risked criticism for pursuing "experiment topics that departed from the practical needs" of the production brigade.[49] And as the wise peasants in one propaganda story explained, "high lanterns see far but not close"—that is, the lofty knowledge of science does not reveal as much about local places as knowledge on the ground does.[50]

This language has clear echoes in the writings of participatory action researchers and others involved in the food sovereignty movement in China. In a striking display of Maoist-inflected discourse, researchers in the Participatory Plant Breeding project have highlighted the "need to challenge most if not all traditional plant science assumptions, such as the belief that farmers are less knowledgeable than breeders." Of course, the authorities referenced are different: Mao himself in the Mao era, and Western social science today. An article on the leftist *People's Food Sovereignty* website has a still sharper political edge. "Modern science," the anonymous author writes, "does not serve peasants and their indigenous knowledge, but rather strips them of the traditional wisdom and skills they embody and makes off with the profits. They [scientists] collect the forest topsoil and take it to the lab to cultivate microbial strains, then after separating out each strain, they name them and patent them, then sell them back to the peasants."[51] Here the class politics of science is deeply resonant with Mao-era writings, for example in this 1971 condemnation of participants in the scientific experiment movement allegedly influenced by Liu Shaoqi: "Their clothing is lavish and their speech foreign; they've lost the appearance of the poor and lower-middle peasants and soaked up the stench of the capitalists... [They have] taken the technologies that the poor and lower-middle peasants slaved to teach them and secreted them away in their own sacks instead of sharing them with others."[52]

Beyond these similarities across time in China, it is deeply significant, and yet very rarely recognized, that the specific strand of social science that is proving so inspiring to leftist Chinese academics itself emerged during a period of strong Maoist influence among Western intellectuals. In his 2011 study of environmentalism in contemporary southwestern China, Michael Hathaway takes pains to show that the dominant "winds" of political influence have not always blown from West to East, and he does this through a discussion of Maoist influence on 1960s North American feminists and anti-racist organizers.[53] Hathaway's contribution joins a host of recent scholarship on Maoism globally, and particularly among intellectuals in Western countries. What Hathaway is not quite able to do is to trace the full circle: it's not just that Maoism inspired Western feminists and now Western environmentalism is inspiring southwestern China; rather, Maoism helped shape some of the same revolutionary academic movements in the West that are now helping to shape leftist academics in China.

The "participatory" model so attractive to leftist Chinese academics—especially but not exclusively in the area of rural development studies—is more specifically identified as "participatory action research." The term distinguishes the work of more radical or at least progressive-minded researchers within what has since the 1940s been identified as "action research"—that is, research intended to create change rather than merely to produce knowledge about the subject. Kurt Lewin, the MIT social psychologist who coined the term, developed his research methodology to help organizations (mostly businesses) develop more effective employee relations. Although the specific use of "participatory" emerged only in the mid-1980s,[54] the currents were very much already in the air during the 1960s and 1970s; key figures in this movement were the celebrated Brazilian philosopher of education Paolo Freire and the Colombian researcher Orlando Fals Borda. The resonance of Freire's liberatory pedagogy with Maoist philosophy has been well recognized.[55] In his highly influential *Pedagogy of the Oppressed*, he quotes Mao at length (albeit in the footnotes) to support his articulation of what Mao would have called the "mass line." Specifically, he quotes from a conversation between Mao and Andre Malraux in which Mao said, "we must teach the masses clearly what we have received from them confusedly," and he goes on to quote from Mao's "The United Front in Cultural Work" (1944) a long passage ending with the assertion, "There are two principles here: one is the actual needs of the masses rather than what we fancy they need, and the other is the wishes of the masses, who must make up their own minds instead of our making up their minds for them."[56] The Maoist influence is if anything more explicit and direct in the work of Fals Borda, who weaves quotes like "from the masses, to the masses," "he who has not investigated has no right to give an opinion," and "the unity between knowing and acting" directly into his analysis. [57] In a 1978 effort to trace the epistemological foundations of action research, Paul Oquist (who would later serve on the cabinet of the Sandinistan president of Nicaragua, Daniel Ortega) similarly cited Mao on the dialectics of knowledge and praxis.[58]

Anglophone academics involved in the early stages of formulating participatory action research testify to the early role Maoist philosophy played in shaping their emerging convictions. In an interview with contributors to the SAGE *Handbook of Action Research*, Stephen Kemmis explained, "I began to explore dialectics through Hilary Putnam [himself an

important Maoist philosopher of science] and the Marxist tradition, including a fine account of dialectics offered by the now-disgraced Mao Tse-tung. I became convinced that a science was needed that properly acknowledged each person's capacity to develop knowledge." [59] British curriculum innovator Lawrence Stenhouse was known to recommend "the study of Mao Tse Tung's works for their illumination of action-research." [60] According to Robin McTaggart's 1991 *Action Research: A Short Modern History*, Stenhouse "challenged those armchair critics who want to change what is happening in schools by inviting them to produce a curriculum which made their ideas testable," and to support this challenge "he quoted Mao Zedong: 'If you want to know a certain thing or a certain class of things directly, you must personally participate in the practical struggle to change reality...'" McTaggart referred back to this quotation himself a few pages later to support the notion, widely accepted in participatory action circles, that "the idea of radical critique without social action is a contradiction."[61]

And so despite all the Cold War's segregations we have a remarkable circulation of ideas, with advocates of participatory development and appropriate technology in the 1970s West echoing Mao to assert that "the only development that makes sense is development of the people and their skills, by the people and for the people"... and advocates of food sovereignty in 2010s China proclaiming that "the only appropriate science and technology is that which applies science locally using methods that enhance and preserve peasant agency."[62]

Of course, as historians, our instinct is always to take another step back, and in this case that next step would seem to put us in the 1930s, when Kurt Lewin was developing the theories of social psychology that laid the foundation for action research and Mao was at Yan'an developing the ideas that came to be codified as Mao Zedong Thought. Robert Lifton concluded that Lewin, though read by Chinese communists, had little influence on their approaches to psychology.[63] However, a doctoral student of psychology in China wrote in a brief article, "Kurt Lewin in China," "I feel that what Lewin did for the Soviet Union is quite like what he has done for China. Lewin and the psychologists in socialist countries had a tacit mutual understanding."[64] Even if Lewin's connection to Mao turns out to be something of a stretch, another critical player in the deep history of participatory action research has unquestionable links to Maoist philosophy: John Dewey's critique of the separation of theory and practice was epistemologically foundational for both Maoism and participatory action research.[65]

Thus, I am not claiming that Maoism was the most important inspiration in the development of participatory action research, nor am I suggesting that we simply "close the loop" by seeing current Chinese interest in participatory action research as a "coming home" to Mao. What I am arguing for is a history of this activist-academic movement large enough to encompass not only its recent movement from the West into China, but also its emergence from the global radical 1960s-1970s currents in which Maoism played a critically important role, and further the transnational intellectual world of the 1920s-1930s.

That the Chinese threads appear in such disparate places in the tapestry—and threaten not to connect at all—is a curious phenomenon worthy of scrutiny. Of the 41,680 instances of the term "action research" (行动研究) in the China Academic Journals database, only 697 (less than 2%) also refer to Mao Zedong—and when those references are scrutinized individually, they tend not to reflect significant discussion of the relationship between Maoism and participatory action research.[66] The researchers involved in the Participatory Plant Breeding project in Guangxi do not position their work in relation to the Mao-era scientific experiment movement. Nor do others promoting the adoption of participatory methodology. For example, a 2006 article by Chen Jianping, a scholar at Fujian Normal University, provided an introductory sketch of the emergence of participatory methodology as it has come to inspire new approaches to development, but China's place in the history is presented as entirely post-1978 and the flow is presented as entirely one-way, "entering" China from abroad. [67] A book-length treatment of participatory action research involving migrant workers published in 2008 provides a much fuller discussion of the history of participatory action research, beginning with Lewin's contributions, but also does not raise the resonance with, much less the influence of, Maoism (nor does it include Freire or Fals Borda).[68] One article on Chinese rural education research discusses Mao but it is the liberal reformer Yan Yangchu whom the author sees as having gained worldwide recognition and whose "thought and practice [思想信念和实践路径] is completely consistent with the main ideas and patterns of participatory action research," such that it "has left a precious academic legacy for the rural education research of today's various social sciences."[69]

Perhaps this lack of engagement with Maoism arises from a reluctance on the part of Chinese social scientists to connect their approaches with the radical politics of the Mao era. Or perhaps it is because they genuinely do not see the connections. Members of the Participatory Plant Breeding project, for example, have explicitly characterized Mao-era extension as unequivocally "top-down" and so present their embrace of participatory methodology as breaking new ground. [70] Their perspective is certainly understandable. Despite much rhetoric—and considerable practice as well—supporting grassroots scientific experiment and technologies suitable to local conditions, the Mao era also witnessed frequent imposition of inappropriate models that incurred significant negative consequences for environmental and human health.

It is also important to recognize that the founders of participatory action research had an understanding of Maoism pretty thoroughly divorced from the actual history of communist revolution in China. As with many other supporters of Mao in the West, they had a tendency to select quotations that reinforced a benevolent image of Mao and Chinese communism. For example, Paulo Freire once cited the following anecdote about Mao to bring home the need for political tolerance:

> The story is told about Chairman Mao's niece complaining to him about "Viva Chiang Kai-Shek!" found scrawled on a blackboard at her

> university. In response to Mao's questions, she told him there were only about two reactionaries among the five thousand students at her university that would have written it. Mao replied that it was too bad there were only two, that it would be better for the Communist side if there were more reactionaries around. He pointed out that people had the right to say what they thought, but that the Communist side also had the right to try to convince them they are wrong.[71]

That is to say, the Maoism that participated in the evolution of action research was not the Maoism that Chinese people involved in action research today or their parents and mentors experienced.

From Native Methods to Indigenous Knowledge

Closely related to both the food sovereignty movement and participatory action research is the effort to tap and preserve "indigenous knowledge"—we have already seen hints of this in two of the articles discussed in the last section. Consistent with the emphasis on indigenous knowledge is a questioning of the inherent goodness of "modernization" and "development," especially as they relate to environmental sustainability. (I have noted that this view appears far less widespread in China than in many Western countries.) Chen and Huang's discussion of the Participatory Plant Breeding project credits modern agricultural methods for increasing output but asserts that they have come with the heavy costs of lowered sustainability and loss of biological diversity. The Zhou Li et al article on food sovereignty cited earlier goes somewhat further in this direction, questioning the developmentalist paradigm that focuses only on "how to develop" rather than asking "what development is" and "whether to develop."[72]

The question of "whether to develop" was never on the table in the Mao era. However, the celebration of indigenous knowledge (in Chen and Huang's article, this was 乡土知识) in China today rests on decades of emphasis on "native methods" (土法 or 土办法) and "native experts" (土专家). In Maoist ideology, *tu* (土) denoted a cluster of related meanings (native, Chinese, local, rustic, mass, crude) that contrasted with *yang* (foreign, Western, elite, professional, ivory-tower) to form a radical vision of science—that is, a science produced by the broad masses for the fulfillment of socialist revolutionary goals. Official policy encouraged harnessing *tu* and *yang* together in productive partnership (土洋并举 or 土洋结合). However, "moderates" (or "technocrats") took every opportunity to secure the leadership of the professional scientists whose skills they trusted to modernize China, while "radicals" harbored suspicions of scientists with foreign connections and consistently pushed for *tu* to lead *yang*.[73]

The Maoist *tu* science paradigm shares with the indigenous knowledge movement a tendency toward primitivism. Indigenous knowledge advocates would perhaps not explicitly embrace the term "primitive," but they nonetheless have a stake in presenting the value of indigenous in terms of its difference from modern science. In Mao-era discourse, *tu* science was celebrated as being "crude and simple" (因陋就简), a notion closely connected with Mao's frequently repeated pronouncement that China's "poor and blank" (一穷二白) condition was an asset rather than a liability. The ideological significance of these slogans went beyond making a virtue of necessity, and they are no doubt at least partly responsible for the idea that Maoism was an anti-modernization ideology.

But despite its romantic depictions of the glory of starting from a primitive condition, Maoist ideology was not anti-modernization. In Mao-era China, there was no purchase for "tradition" against the overriding quest for modernization, and this in fact is the crux of the difference between Mao-era *tu* science and the indigenous knowledge movement. The primitivism Maoist radicals celebrated was a clean slate and an absence of fetters; members of the Participatory Plant Breeding project and other proponents of indigenous knowledge instead see a rich heritage that, if preserved, can provide an antidote to the environmentally destructive tendencies of modern science. Still more importantly for our purposes, the Mao-era state created the mass scientific experiment movement to bring peasants on board with modern agricultural methods, while the members of the Participatory Plant Breeding project emphasize the legitimacy and value of social networks and knowledge communities outside those organized by the state. They seek to acknowledge and protect the practices through which peasants select their own seeds and then circulate them in informal markets, and further to bring these networks into productive exchange with the formal research and extension system of scientists. This is clearly a significant departure from the Mao-era scientific experiment movement, which had at best a co-opting relationship, and at worst an openly hostile relationship, with cultural forms and social activities outside the official political economy.[74]

The question of tradition not only divides Mao-era radicals from post-Mao Chinese activists; it was one of the most important contradictions among leftists globally during the 1960s and 1970s as well.[75] Today, it may be rare to find leftists who would not profess faith in the value of indigenous people's traditions against global modernization, but I suspect those differences are still mostly papered over and have not truly been resolved. Bill Hinton's *Through a Glass Darkly*—a posthumously published response to post-Mao scholarship on rural China and especially to Friedman et al's *Chinese Village, Socialist State*, which was itself a corrective to Hinton's *Fanshen*—has probably been read by many China scholars as one of the last gasps of defense for the debunked old celebratory view of Mao-era collectivism. There is much to cringe at in that volume—especially the continued skepticism about the extent of the Great Leap famine—but Hinton raised an important point about the increasing tendency for academics to valorize "tradition" and condemn all state efforts to transform what in other times have been widely recognized by progressives as ideas and practices grossly oppressive to women, poor people, and members of ethnic minorities. Leftists may be united in opposition to corporate capitalism and imperialism, but there is little consensus on whether the future goal should be a society based on values and practices deeply embedded in venerable tradition or freshly constructed out of new cloth.

The transnational energy behind "indigenous knowledge" accelerated after the 1993 UN Declaration on the Rights of Indigenous Peoples, which included formal recognition of indigenous peoples' "holistic traditional scientific knowledge of their lands, natural resources and environment."[76] However, the concept was already well established considerably earlier, especially among anthropologists and followers of the "appropriate technology" movement. The 1980 volume *Indigenous Knowledge Systems and Development*, for example, collected two dozen articles written over the previous decade on efforts to document the knowledge—especially the agricultural knowledge—of local communities in developing countries. The editors emphasized their goals as twofold: first, "to demonstrate the richness, variety and value of indigenous knowledge"; and second, to argue "that rural development must include... this knowledge" because indigenous knowledge is "complementary to conventional science, which has proved to be inadequate, on its own, to solve problems of rural development."[77]

Importantly, China was not a part of that book. Indeed, it could not have been. No one in the intellectual community of anthropologists contributing to such projects had yet been able to study a relevant case in China. But within China, the state had placed significant emphasis on the value of traditional farming knowledge as preserved in old "agricultural maxims" (农谚), publishing annotated volumes of such lore and encouraging educated youth to collect them from "old peasants" in their villages. The state's treatment of such traditional forms of knowledge resembles in important ways the interest Western scholars invested in indigenous knowledge. There were critical differences, however, especially in the overriding concern displayed by the Chinese state in evaluating the scientific and political legitimacy of each maxim and rejecting those that did not suit the new rational, socialist society.

The resemblance between Chinese and transnational discourse is clearer when we look at the related 1970s transnational movement known as "appropriate technology," earlier known as "intermediate technology." Advocates of appropriate technology by no means all agreed on what the term encompassed, but generally they sought to combine local, traditional knowledge with useful, economical, sustainable approaches developed elsewhere (including through modern science) to arrive at technologies that served basic human needs. Although the appropriate technology movement has deeper ties to Indian self-reliance through the work of its founder E. F. Schumacher and other proponents like Ward Morehouse, it also ran remarkably parallel to the approach the Chinese state was pursuing through its efforts to combine "*yang* and *tu*," and it is no wonder that advocates of appropriate technology eagerly collected and republished accounts of China's achievements in this area. What China had to offer the transnational community of radical academics was not case studies of farming villages with "traditional" technologies, but rather model units that a large socialist state had supported to achieve "self-reliance" (自力更生) through the adoption of "native methods" (土办法) that were "crude and simple" (因陋就简), that "suited local conditions" (因地制宜), and that "made do with locally available materials" (就地取材).

Inspirational accounts of China's unique approach to cultivating "native methods" appeared in the writings of many Western visitors to China in the 1970s.[78] The fullest treatment is probably the 1974 volume *China: Science Walks on Two Legs* by the radical science activist organization Science for the People, but perhaps more influential was the *Barefoot Doctors Manual*—a 1974 English translation of a text used by the celebrated "barefoot doctors" of Maoist China.[79] Early issues of the journal *Appropriate Technology*, which also began in 1974, included articles on medicine and ferro-cement boat-building in rural China, and the organization that published that journal also published a volume on Chinese chain and washer pumps based on leaflets collected by Joseph Needham at the 1958.[80] Members of those same circles drew further inspiration from the recent (1970) reprint of Rudolf Hommel's classic 1937 text *China at Work: An Illustrated Record of the Primitive Industries of China's Masses, Whose Life Is Toil, and Thus an Account of Chinese Civilization*. A volume produced by a 1975 UN Food and Agricultural Organization delegation to China and titled *Learning from China*, specifically focused on what the world might learn from socialist China's unique approach to agricultural science and technology.[81] And in 1987, a volume more modestly titled *Learning from China?* (note the question mark) offered a somewhat belated discussion of PRC innovations in environmentally sustainable technologies—belated because China's regime change and the consequent reevaluation of Maoist radicalism was increasingly throwing doubt on the entire project of drawing on socialist China for inspiration.[82]

The overwhelming mediating role played by the Chinese state in the production of most such accounts (a notable exception being *China at Work*) went largely unacknowledged. Unlike the rich anthropological studies of indigenous knowledge and appropriate technologies in Africa, Latin America, and Southeast Asia, accounts of Chinese "native methods" were based on models carefully selected by the state for what they said about the accomplishments of state socialism. And an irony that will be obvious to anyone who has read Jacob Eyferth's magnificent study of paper-making communities in Sichuan is that, in the process of creating these models of new socialist self-reliance, the socialist Chinese state was in many cases transforming out of existence many of those same old skills that held such practical and symbolic value for proponents of appropriate technology.[83]

China thus had a unique and even odd voice in discourse on indigenous knowledge and appropriate technology. China was interesting because of longstanding Western fascination with "ancient Chinese wisdom" (and this is no doubt what explains the inclusion of Hommel's text in the 1976 *Appropriate Technology Sourcebook*[84]). But it was also interesting because it represented a progressive socialist rationality—a demonstration of the possibilities for reorganizing society at a fundamental level and so solving the problems generated by advanced capitalism. While traditional knowledge forms and socialist modernity were frequently in conflict in China itself, these contradictions were not typically recognized in the cornucopia of inspirational examples from

China that helped feed the appropriate technology and indigenous knowledge movements. Where PRC state and Western radical perspectives aligned was in the romantic depiction of what could be accomplished through simple, inexpensive solutions and an anti-capitalist political orientation. Where they diverged was in their attitudes toward traditional knowledge forms and toward the centralized state.[85]

Another critical question that is often papered over when looking to China for inspiration is what "indigenous Chinese knowledge" is: can Chinese people as a whole be counted as "indigenous," or are there specific "indigenous peoples" within China who are distinct from the Han, non-indigenous majority?[86] China voted in support of the 1993 UN declaration on indigenous rights—the only four "no" votes were Australia, Canada, New Zealand and the United States. However, in 1995 China declared that while it supported the rights of oppressed indigenous peoples around the world, China's "minority nationalities" had not been the victims of Chinese colonization and therefore did not fall under the same category as the "indigenous peoples" the UN sought to protect.[87] And in a 2005 conference organized by the Chinese Ministry of Culture to build on the 2003 UNESCO Convention on the Safeguarding of Intangible Culture, the Chinese state effectively assumed the focus on indigenous knowledge for China as a whole rather than for its minority nationalities.[88] The essential issue here is the slipperiness in how Chinese culture is perceived. Who is the colonizer and who is the colonized? The Chinese state's perspective is that China has never been a colonizing force, so China has no indigenous peoples. This is increasingly not the way Western leftists see the issue, but in the 1970s sympathy for socialist China's geopolitical position and perhaps other factors made people more likely to treat all Chinese knowledge (especially in medicine but also in agriculture and other areas) as forms of indigenous knowledge. This tendency probably did not arise from any explicit political position on the relationship between the Chinese empire and its subject peoples. Rather, it owed something to an Orientalist assumption of Chinese ancientness, and also spoke to a very reasonable recognition of the threat modern Western science posed to traditional Chinese knowledge forms, which was in some important ways similar to the threat it posed to knowledge forms possessed by indigenous peoples.

In a 2007 article, Janet Sturgeon explores three important influences on the concept of the "indigenous" in China, while acknowledging that there are others she does not discuss. She highlights the Chinese state's 1995 response to the UN declaration on indigenous rights, the work of an influential Chinese NGO known in English as the Center for Biodiversity and Indigenous Knowledge (CBIK), and the 2005 conference organized by the Ministry of Culture on the preservation of "intangible" culture. To build on her exploration, I would begin by tracing the influence of the potent Mao-era concept of "native methods." As Sturgeon shows, the state's discomfort with identifying minority nationalities in China as "indigenous" peoples has led to a shunning of the term "indigenous" (原住): CBIK's Chinese name does not include this term, but substitutes "traditional" (传统) instead.[89] Chinese writings on food sovereignty often similarly use the term "traditional," but also use a number of other terms (乡土、本土、土著) that evoke the concept of "native" without using the specific term 原住 that has been used to translate "indigenous" in transnational political discussions about "indigenous rights." I would suggest that the political and epistemological significance of these terms cannot be understood without reference to the Maoist past, which for all its travesties laid down a rich soil for those who seek to cultivate respect for "native methods" today.

Conclusion

To conclude this exploration, I want to step back a moment to ask: What does it matter that contemporary Chinese food politics have Maoist roots? And how does it help to write these histories in simultaneously transnational and diachronic perspective?

One thing these histories demonstrate is that similar (though by no means the same) radical ideas about food and agriculture emerged along similar timelines in China and other places in the world, but that these ideas had different fates because of the outcomes of geopolitical processes. So, the concepts of food sovereignty, participatory action research, and indigenous knowledge have become fixed ahistorically in a very presentist development discourse, while the Mao-era concepts of mass science and native methods have largely disappeared from consciousness. Self-reliance remains something of a touchstone today, but recognition of the role of Maoism in the transnational circulation of this concept is muted even in Chinese writings on food sovereignty.

The irony, of course, is that China served as an inspiration in the transnational context of anti-capitalist organizing in the 1970s, even though China was at that time very difficult to reach and the examples it could offer were usually highly mediated by the state. In fact, to claim that "China" was influential in transnational radical movements during the 1970s is politically revealing: "China" is not the same kind of actor as "Freire," "Fals Borda," or "Schumacher." The nearest equivalent to a Chinese Freire would be Mao himself, and Mao, however powerful, could not participate as the same kind of independent critical voice that Freire did. Aside from Mao, what Western radicals gleaned from China came via Dazhai, chain and washer pumps, and other non-human actors. This lack of "Chinese Freires and Schumachers" undoubtedly influenced the ways in which Chinese contributions to radical ideology have or have not survived the 1978 divide in China and globally.

Chinese people participate much more actively in current movements that carry the 1970s work forward than they did in the 1970s itself, and the resonance with Maoist ideas is still palpable in those movements, but the role of Maoist China in that history is largely ignored and the ideas are embraced as though they were purely Western imports. We might perhaps draw an analogy to the introduction to China of modern forms of governmentality in the twentieth century: Chinese statecraft had served as an important influence on the thinking of Leibniz and others in early-modern Europe as the ideal of the modern nation-state was taking shape, yet this influence was largely forgotten during China's efforts to modernize its political system along Western lines.[90] The aim of writing a

transnational, trans-1978 history of food politics in China is thus necessarily part of a much larger goal—pursued by many other scholars but still not quite within reach—of finding good ways of explaining China's shifting roles and enduring legacies within the long history of global political struggles.

[1]Activists in Anglophone countries often call them "suicide seeds," because they contain a gene that renders them infertile, compelling farmers to return to the seed companies each year for new supplies, and for that reason they are implicated in the literal suicides of debt-stricken farmers in India.

[2] Li Changping. "Zhi Yuan Longping Laoshi de yifeng xin gongkai xin" 李昌平致袁隆平老师的一封信公开信[An open letter to Yuan Longping], 28 April 2011, http://www.snzg.net/article/2011/0428/article23504.html (accessed 6 July 2015).

[3] Jiang Gaoming, "Shei zui rezhong zhuanjiyin" 谁最热衷转基因 [Who feels most strongly about genetic modification], http://blog.sciencenet.cn/blog-475-547084.html, 12 March 2012 (accessed 6 July 2015).

[4] On the relationship between the New Rural Reconstruction movement and the state campaign to "build a new socialist countryside," see Alexander Day, *The Peasant in Postsocialist China: History, Politics, and Capitalism (*Cambridge: Cambridge University Press, 2013), Elizabeth Perry, "From Mass Campaigns to Managed Campaigns: 'Constructing a New Socialist Countryside," in *Mao's Invisible Hand: The Political Foundations of Adaptive Governance in China*, eds. Sebastian Heilmann and Elizabeth Perry, 30 – 61 (Cambridge, MA: Harvard University Asia Center, 2011); Sigrid Schmalzer, *Red Revolution, Green Revolution: Scientific Farming in Socialist China* (Chicago: University of Chicago Press, 2016).

[5] Jiang Gaoming, "毛主席是非常重视吃饭问题的," in 蔡金安, "特别报道：乌有之乡纪念毛主席大会全程纪实," 乌有日刊, reposted on http://mzd.szhgh.com/jinian/201312/41078_4.html (红歌会网), 28 December 2013 (accessed 6 August 2015).

[6] Thomas Bernstein and Hua-yu Li, eds. *China Learns from the Soviet Union, 1949–Present* (Lanham, MD: Lexington Books, 2010). See especially Goikhman's contribution: "Soviet-Chinese Academic Interactions in the 1950s: Questioning the 'Impact-Response' Approach."

[7] Zuoyue Wang, "Transnational science during the Cold War: the case of Chinese/American scientists," *Isis* 101.2 (2010): 367-77.

[8] Danian Hu, "Revisiting the Criticism of Relativity in China: Overlooked Western Influences and Unexpected Outcomes," paper presented at the History of Science Society annual meeting, 2013.

[9] Deborah Bräutigam, *Chinese Aid and African Development: Exporting Green Revolution* (St. Martin's Press, 1998); Jamie Monson, *Africa's Freedom Railway: How a Chinese Development Project Changed Lives and Livelihoods in Tanzania* (Indiana University Press, 2009).

[10] Recent years have seen a burgeoning literature on the significance of China for Westerners, especially Western intellectuals and leftist activists. Eric Hayot offers a catalog of such offerings as of 2004 (pp.vi-vii), and based on his own textual exploration concludes that for Western intellectuals "'China' is the name of a particular epistemological formation, a way of knowing the world." *Chinese Dreams: Pound, Brecht,* Tel Quel (Ann Arbor: University of Michigan Press, 2004), 183. More recently, see Richard Wolin, *The Wind from the East: French Intellectuals, the Cultural Revolution, and the Legacy of the 1960s* (Princeton: Princeton University Press, 2010); Tom Buchanan, *East Wind: China and the British Left, 1925-1976* (Oxford: Oxford University Press, 2012); Alexander C. Cook, ed., *Mao's Little Red Book: A Global History* (Cambridge: Cambridge University Press, 2014). And see Kin-ming Liu's odd and interesting edited collection, which offers the reflections of impressions made thirty years ago: *My First Trip to China: Scholars, Diplomats, and Journalists Reflect on their First Encounters with China* (Hong Kong: East Slope Publishing, 2012). I am deeply grateful to Fabio Lanza for sharing portions of his forthcoming book, *The End of Concern: Maoist China, Activism, and Asian Studies* (Durham, N.C.: Duke University Press, 2017). Also eagerly anticipated is Charles Hayford's *America's Chinas: From The Opium Wars to Tiananmen*.

[11] Michael Hathaway, *Environmental Winds: Making the Global in Southwest China* (Berkeley: University of California Press, 2013).

[12] Fa-ti Fan has warned against the assumption that circulation is "a 'natural' or default condition" of knowledge in "The Global Turn in the History of Science," *East Asian Science, Technology and Society* 6.2 (2012): 249–258; Grace Shen has convincingly argued for charting not just the circulations of knowledge but also its "eddies" in "Going with the Flow," in Lightman, McOuat, Stewart, eds. *The Circulation of Knowledge Between Britain, India and China*, pp. 237-60 (London: Brill, 2014).

[13] Yiching Wu, *The Cultural Revolution at the Margins: Chinese Socialism in Crisis* (Cambridge, Mass.: Harvard University Press, 2014).

[14] Li Changping, "'Nongchanpin wuqihua' qushi yu Zhongguo celüè" "农产品武器化"趋势与中国策略 [The "weaponization of agricultural products" and Chinese tactics], http://www.aisixiang.com/data/36287-2.html, 29 September 2010 (accessed 25 July 2015).

[15] Jiang Gaoming, "Li Changping de 'nongchanpin wuqihua' bing fei songren tingwen" 李昌平的"农产品武器化"并非耸人听闻 [Li Changping's "weaponization of agricultural products" is not sensationalism], http://blog.sina.com.cn/s/blog_4b6ea0190100h7p9.html, 17 February 2010 (accessed 12 August 2015).

[16] For an early article discussing "food safety" in this context, see Michael F. Markel, "The Food Additives Amendment of 1958," *The Business Lawyer* 14.2 (January 1959): 514-522.

[17] Nick Cullather, *The Hungry World: America's Cold War Battle against Hunger in Asia* (Cambridge, Mass.: Harvard University Press, 2013).

[18] "Food Stockpiling Urged by U.N. Aide: Presses for Coordination Among Producing Nations," *New York Times,* 9 September 1973, 19; "World Food Security: A Global Priority," US Congress, Hearing Date: 31 July 1973, HTTP://congressional.proquest.com.silk.library.umass.edu/congressional/docview/t29.d30.hrg-1973-foa-0014?accountid=14572.

[19] La Via Campesina [International peasant's movement], http://viacampesina.org/en/index.php/organisation-mainmenu-44.

[20] See Schmalzer, *Red Revolution, Green Revolution*, 123-24.

[21] I am indebted to Bruce Cumings for sharing his leads on this subject. See also Gordon Mark Berger, *Parties Out of Power in Japan, 1931–1941* (Princeton University Press, 1977), 69. This material adapted from Sigrid Schmalzer, "Self-Reliant Science: The Impact of the Cold War on Science in Socialist China," in Naomi Oreskes and John Krige, eds. *Science and Technology in the Global Cold War*, 75-106 (Cambridge, Mass.: MIT Press, 2014).

[22] Although the broader concept is typically rendered *juche* in Korean, the Chinese term for self-reliance, *zili gengsheng*, also appears frequently in North Korean documents (directly translated as *charyok kaengseng*). Scholars have typically traced the North Korean concept of self-reliance to the influence of Chinese Communists in the Yan'an area.

[23] Jenny Leigh Smith, *Works in Progress: Plans and Realities on Soviet Farms, 1930-1963* (New Haven: Yale University Press, 2014), 19.

[24] Dali Yang, *Calamity and Reform in China: State, Rural Society, and Institutional Change since the Great Leap Famine* (Stanford, Calif.: Stanford University Press, 1996), 98ff.

[25] Schmalzer, "Self-Reliant Science"; Sigrid Schmalzer, "Speaking about China, Learning from China: Amateur China Experts in 1970s America," *Journal of American-East Asian Relations* 16.4 (2009): 313-52.

[26] Indira Gandhi, *Indira Gandhi on Science, Technology and Self-Reliance* (Calcutta: Indian Science Congress Assoc., 1985). Note that self-reliance in India is *swadeshi*, a part of the *swaraj* (or independence) movement.

[27] Bräutigam, *Chinese Aid and African Development: Exporting Green Revolution* (New York: St. Martin's Press, 1998), 1–2, 176–79; Schmalzer, *Red Revolution, Green Revolution*, chapter 5.

[28] Schmalzer, *Red Revolution, Green Revolution*, 146-47.

[29] Monson, *Africa's Freedom Railway*; Deborah Bräutigam, *Chinese Aid and African Development*, 1–2 and 176–179.

[30] "If Words Were Food, Nobody Would Go Hungry," *Economist*, 19 November 19 2009: 61-63. First portion of the quotation also in Cullather, *Hungry World*, 265.

[31] Beverly D. McIntyre et al, eds., *International Assessment of Agricultural Knowledge, Science and Technology for Development Synthesis Report* (Washington DC: IAASTD, 2009), 12.

[32] For activist websites, see, e.g., http://naturalsociety.com/china-incinerates-3-us-shipments-of-genetically-modified-corn/; http://ecowatch.com/2014/05/15/chinese-army-gmo/

[33] Peter Ho, Eduard B. Vermeer and Jennifer H. Zhao, "Biotechnology and Food Safety in China: Consumers' Acceptance or Resistance?" *Development and Change* 37.1 (2006): 227–253.

[34] See, e.g., Jiang Qianhong, "Zhuanjiyin shipin zhi zheng" 转基因食品之争 [The battle over genetically modified foods], *Renmin ribao*, 5 March 1999; Lu Suyan, "Faguo rou dan xiaofeiliang xiajiang" 法国肉蛋消费量下降 [French

consumption of meat and eggs declines], *Renmin ribao*, 23 June 1999; Chen Junshi, "Baohu jiankang de guanjian fangxian" 保护健康的关键防线 [The front lines in defending health], *Renmin ribao*, 27 July 1999; and many others.

[35] "Zhuanjiyin shipin haochi ma" 转基因食品好吃吗 [Are genetically modified foods tasty?], *Renmin ribao* 3 April 2000.

[36] Ho, "Biotechnology and Food Safety in China," 233.

[37] Ho, "Biotechnology and Food Safety in China," 235. See also http://www.greenpeace.org/eastasia/news/stories/food-agriculture/2004/chinese-consumer-loses-ge-food/. Greenpeace has continued the pressure on Nestlé and in 2009 exposed the inclusion of undisclosed GM ingredients in baby food sold by Nestlé in China.

[38] Robert Faulkner writes, "The shift towards greater precaution in GMO regulation, therefore, reflects both greater environmental sensitivity and the strategic use of safety concerns for protectionist purposes. In a sense, the biosafety agenda satisfies both the environmental constituency and those state elites that seek to control foreign investment and competition, while integrating the country every further into the global economy." Robert Faulkner, "International Sources of Environmental Policy Change in China: The Case of Genetically Modified Food," *The Pacific Review* 19.4 (2006): 473–94.

[39] Yuezhi Zhao, "Sustaining and Contesting Revolutionary Legacies in Media and Ideology," in Sebastian Heilmann and Elizabeth Perry, ed, *Mao's Invisible Hand: The Political Foundations of Adaptive Governance in China* (Cambridge, Mass.: Harvard University Asia Center, 2011), 204.

[40] Zhou Li, Pan Sumei, Dong Xiaoyu, "Cong 'shei lai yanghuo Zhongguo' dao 'zenyang yanghuo Zhongguo'" 从"谁来养活中国"到"怎样养活中国"[From "who will feed China" to "how to feed China"], *Zhongguo nongye daxue xuebao (shehui kexue ban)* 中国农业大学学报(社会科学版) 29.2 (2012): 20-33.

[41] See, e.g., "Zhongguoren wanquan you nengli yanghuo ziji" 中国人完全有能力养活自己 [Chinese people are completely capable of feeding ourselves], *Renmin ribao* 8 March 1996; Du Feijin, "Zhongguo kao zili nenggou shixian fengyi zushi" 中国靠自力能够实现丰衣足食 [China can rely on its own strength to become well fed and and well clothed], 3 August 1995.

[42] Zhou Li, "Cong 'shei lai yanghuo Zhongguo.'"

[43] Yan Hairong and Chen Yiyu, "Cong dadou weiji kan shiwu zhuquan" 从大豆危机看食物主权 [Looking at food sovereignty from the perspective of the soybean crisis], *Nan Fengchuang* 南风窗, http://www.nfcmag.com/article/4256.html, 2013.19. Among the many places it has been reproduced is the website People's Food Sovereignty http://www.shiwuzq.com/food/knowledge/guard/20131216/121.html and the website Sannong Zhongguo. http://www.snzg.cn/article/2013/0918/article_34988.html.

[44] The next four paragraphs are adapted from Schmalzer, *Red Revolution, Green Revolution*.

[45] Mindi Schneider offers a sophisticated critique of current Chinese rural development discourse that resonates strongly with that of the Participatory Plant Breeding Project. See Mindi Schneider, "What, then, is a Chinese peasant? Nongmin discourses and agroindustrialization in contemporary China," *Agriculture and Human Values* 32.2 (2015): 331-46.

[46] Mao Zedong, *Quotations from Chairman Mao Tse-tung* (Beijing: Foreign Languages Press, 1966), 40.

[47] Schmalzer, *Red Revolution, Green Revolution*, 4.

[48] *Nongcun zhishi qingnian kexue shiyan jingyan xuanbian* 农村知识青年科学实验经验选编 [Selected experiences of rural educated youth in scientific experiment] (Beijing: Beijing renmin chubanshe, 1974), 49.

[49] "Lingdao zhishi qingnian jiji kaizhan kexue shiyan" 领导知识青年积极开展科学实验 [Leading educated youth to actively develop scientific experiment], *Renmin ribao*, 16 October 1972.

[50] *Kexue zhongtian de nianqing ren* 科学种田的年轻人 [Youth in scientific farming] (Beijing: Zhongguo qingnian chuban she, 1966), 14-16.

[51] "Wei shenme women bu zhijie mai youjifei huo junzhong? Zizhi junzhong de" 为什么我们不直接买有机肥或菌种 [Why don't we directly buy organic fertilizer or microbial strains? Homemade microbial strains], http://www.shiwuzq.com/food/rights/science/2014/0526/276.html, 26 May 2014.

[52] Zhonggong Nanweizi Gongshe Weiyuanhui, "Yi jieji douzheng wei gang banhao sanji nongkewang" 以阶级斗争为纲办好三级农业网 [With class struggle as the key link, create the three- level agricultural science network], *Nongcun kexue shiyan* 1976.8: 6-9, 9.

[53] Hathaway, *Environmental Winds*, 27-33.

[54] In 1983 we start seeing references to "participatory action research" in articles indexed by Jstor. Gerrit Huizer, "The Politics of Rural Development in Latin America: Constraints on Cooperatives and Popular Participation," *Boletín de Estudios Latinoamericanos y del Caribe* 35 (1983): 3-20. This one gives some background and cites Fals Orda quite a bit, but the actual term "participatory action research" is still somewhat elusive — seems to be something in the air at this point but without specific references. Max Elden, James C. Taylor, "Participatory Research at Work: An Introduction," *Journal of Occupational Behaviour*, 4.1 (1983): 1-8. This one cites Freire but not Fals Orda.

[55] Peter Roberts, "Knowledge, Dialogue, and Humanization: The Moral Philosophy of Paulo Freire," *The Journal of Educational Thought (JET) / Revue de la Pensée Éducative,* 32.2 (1998): 95-117; Y. Michal Bodemann, "A Problem of Sociological Praxis: The Case for Interventive Observation in Field Work," *Theory and Society* 5.3 (1978): 387-420.

[56] Paolo Freire, *Pedagogy of the Oppressed* (New York: Continuum, 2000 [1968]), chapter 3. Freire references Mao on the principle of contradiction in chapter 3 and in chapter 1 he writes, "The pedagogy of the oppressed, as a humanist and libertarian pedagogy, has two distinct stages. In the first the oppressed unveil the world of oppression and through the praxis commit themselves to its transformation. In the second stage, in which the reality of the oppression has already been transformed, this pedagogy ceases to belong to the oppressed and becomes a pedagogy of all people in the process of permanent liberation. In both stages, it is always through action in depth that the culture of domination is culturally confronted." He then provides a footnote where he says, "This appears to be the fundamental aspect of Mao's Cultural Revolution."

[57] Orlando Fals Borda, "Investigating Reality in Order to Transform It: The Colombian Experience," *Dialectical Anthropology* 4.1 (1979): 33-55.

[58] Paul Oquist, "The Epistemology of Action Research," *Acta Sociologica* 21.2 (1978): 143-163.

[59] Patricia Gayá Wicks, Peter Reason, and Hilary Bradbury, "Living Inquiry: Personal, Political and Philosophical Groundings for Action Research Practice," in *The SAGE Handbook of Action Research: Participative Inquiry and Practice*, second edition, ed. Peter Reason, Hilary Bradbury (London: SAGE Publications, 2008), 19.

[60] However, despite such references to Mao and Lenin, according to Richard Winter, "action-research has invoked the rhetoric of dialectics' complex unity, but has — on the whole — not sought to base its activities on an epistemology actually derived from dialectics." Richard Winter, *Action-Research and the Nature of Social Inquiry: Professional Innovation and Educational Work* (Aldershot, Eng.: Avebury, 1987), 33.

[61] Robin McTaggart, *Action Research: A Short Modern History* (Victoria: Deakin University, 1991), 23, 30-31. The quotation comes from Lawrence Stenhouse, "Curriculum Research and the Art of the Teacher," *Curriculum* 1 (1980): 40-44, 40. McTaggart also quotes Mao in his *Participatory Action Research: International Contexts and Consequences* (Albany: SUNY Press, 1997): "The important thing is to be good at learning" (p. 41).

[62] Ken Darrow and Rick Pam, *Appropriate Technology Sourcebook, Volume 1* (Stanford, Cal.: Volunteers in Asia, 1976), 10; "Wei shenme women bu zhijie mai youjifei."

[63] Robert Jay Lifton, *Thought Reform and the Psychology of Totalism* (Chapel Hill, N.C.: UNC Press, 1989 [1961]), 388.

[64] Shen Heyong, "Kurt Lewin in China," in *Advances in Field Theory*, ed. Wheelan, Pepitone, Abt, 90-95 (Newbury Park, Calif.: Sage Publications, 1990), 93.

[65] There is much scholarship on the influence of Dewey on Mao. I have found Sebastian Heilmann's recent work on China's experimental policy process tremendously helpful: "Policy Making through Experimentation," in Heilmann and Perry, *Mao's Invisible Hand*. On Dewey and Participatory Action Research, see e.g. Oquist, "The Epistemology of Action Research"; Martyn Hammersley, "Action Research: A Contradiction in Terms?" *Oxford Review of Education*, 30.2 (2004): 165-81.

[66] Ian Hughes and Lin Yuan have also noted the resonance between action research and Maoism, but they do not trace the influences and instead offer the kind of analysis of *yin* and *yang* one often finds in efforts to make China relevant to people who don't realize just how much concrete historical relevance it truly has for their work. "The Status of Action Research in the People's Republic of China," *Action Research* 3.4 (2005): 383–402. Another example of this type of analysis is Peter Park, "Knowledge and Participatory Research," in *SAGE Handbook of Action Research*, ed. Peter Reason (London: SAGE, 2001), 85. Both texts represent a familiar enthusiasm about

the possibility of using Chinese philosophy and language to overcome the dualism understood to be at the heart of Western philosophy.

[67] Chen Jianping, "Cong changguishi dao canyushi nongcun fazhan zhong de juese zhuanhuan wenti tanxi" 从常规式到参与式农村发展中的角色转换问题探析 [Exploratory analysis of the transformation of roles, from conventional to partipatory, in rural development], *Nanfang luncong* 南方论丛 2006.1: 76-87, 76-77.

[68] Lin Zhibin and Zhang Lixin, *Dagongzhe canyushi xingdong yanjiu* 打工者参与式行动研究 [Migrant worker participatory action research] (Beijing: Shehui kexue wenxian chubanshe, 2008), 1-14. Other than Lewin, the key participatory action research theorists they cite are Yoland Wadsworth, Davydd Greenwood, and Morten Levin. Notably, these texts do not appear to cite Mao.

[69] Ba Zhanlong, "Zhongguo xiangcun jiaoyu yanjiu jincheng de huigu yu pinglun" 中国乡村教育研究进程的回顾与评论 [Reflections on and discussion of the course of Chinese rural education research], *Hunan shifan daxue jiaoyu kexue xuebao* 8.5 (2009): 37-42, 38.

[70] Zhang Li et al., "Opening Our Eyes: Renewing the Chinese Public Extension System," in Song Yiching and Ronnie Vernooy, ed. *Seeds and Synergies: Innovating Rural Development in China*, 85-111 (Warwickshire, UK: Practical Action Publishing, 2010), 87.

[71] Paulo Freire, "Reading the World and Reading the Word: An Interview with Paulo Freire," *Language Arts*, 62.1 (1985):15-21, 16.

[72] Zhou Li, "Cong 'shei lai yanghuo Zhongguo.'"周立, 从"谁来养活中国"

[73] These two sentences from Schmalzer, *Red Revolution, Green Revolution*, 34.

[74] The last three sentences from Schmalzer, *Red Revolution, Green Revolution*, 221.

[75] Another central contradiction has been and continues to be the role of the state. In several leftist activist groups I have been involved in, state-socialists and anarchists work together while mostly leaving unresolved the question of whether we expect the state to provide or local communities to do for themselves.

[76] "Resolution adopted by the General Assembly on 19 December 2011: Rights of Indigenous Peoples," http://www.un.org/Docs/journal/asp/ws.asp?m=A/RES/66/142, accessed 28 July 2015.

[77] David Brokensha, Dennis M. Warren, Oswald Werne, *Indigenous Knowledge Systems and Development* (Lanham, MD: University Press of America, 1980), 8.

[78] Schmalzer, "Learning from China."

[79] Hunan Zhongyiyao yanjiusuo geweihui, *A Barefoot Doctor's Manual: Translation of a Chinese Instruction to Certain Chinese Health Personnel* ([Bethesda, Md.]: US Department of Health, Education, and Welfare, Public Health Service, National Institutes of Health, 1974).

[80] Ken Darrow and Rick Pam, *Appropriate Technology Sourcebook, Volume 1* (Stanford, Cal.: Volunteers in Asia, 1976).

[81] FAO Study Mission, *Learning from China: A Report on Agriculture and the Chinese People's Communes* (Rome: FAO, 1978).

[82] Bernard Glaeser, *Learning from China? Development and Environment in Third World Countries* (London: Allen & Unwin, 1987).

[83] Jacob Eyferth, *Eating Rice from Bamboo Roots: The Social History of a Community of Handicraft Papermakers in Rural Sichuan, 1920–2000* (Cambridge, Mass.: Harvard University Asia Center, 2009). It may be that some of these development efforts in Africa and other places that were celebrated by appropriate technology groups in fact had similar consequences for local, socially and historically based skills. I have not seen scholarship on this subject.

[84] Darrow and Pam, *Appropriate Technology Sourcebook*, 71.

[85] Of course, Westerners do not constitute an undifferentiated mass any more than Chinese people do. In his visit to China with the US Plant Studies Delegation in 1974, China historian Philip Kuhn expressed relief that peasants were not being tapped out of some faith in "the formalized and sacrosanct body of rural lore" but rather for "the innate inventiveness of the ordinary peasant." Schmalzer, *Red Revolution, Green Revolution*, 107, 115.

[86] A related political problem that has surfaced more recently is whether we count China as part of the "Global South."

[87] Inter-Sessional Working Group on Draft Declaration 1st Session Document 95-14322, Statements by Argentina, Chile, China, Finland, New Zealand, and Ukraine, 10 October 1995, http://cwis.org/GML/UnitedNationsDocuments/95-14322.TXT-E/CN.4/1995/WG.15/2.

[88] Janet C. Sturgeon, "Pathways of 'Indigenous Knowledge' in Yunnan, China," *Alternatives: Global, Local, Political* 32.1 (2007): 129-53, 131.

[89] Sturgeon, "Pathways," 130-31. The full name is 云南省生物多样性和传统知识研究会.

[90] David Bonner Richardson, "The Affiliation of the Contemporary Social Sciences with Chinese Ideas," *Journal of Thought* 4.3 (1969): 191-203.