



Diversity of Food and Farming Cultures in the Global Political Ecology of Food

食品的政治生态学：食品多样化与农业文化

Harriet Friedmann

Professor Emerita, University of Toronto

哈里特 弗里德曼，多伦多大学教授

China Agricultural University

October 17, 2013





Introduction: An anecdote about Bt Brinjal (Eggplant) 导言：一则奇闻——Bt茄子



In 2005, I was surprised to learn from an Indian agricultural scientist, whom I chanced to meet socially, that she was working in India on Bt Brinjal. Bt (*Bacillus thuringiensis*) is one of the few pest controls permitted in organic farming, so its introduction into potatoes, cotton, and maize was controversial. This was the first vegetable I had heard of. Why? And why in India?

2005年，我偶然结识了一位印度农学家，她告诉我她正在研究Bt茄子。我大为惊讶！Bt（苏云金杆菌）是被允许在有机农业中使用的少数几种害虫控制技术之一。它在土豆、棉花和玉米上的使用曾饱受诟病。茄子是我听说的第一种（使用该技术的）蔬菜。为什么（是茄子）？为什么这发生在印度？



Introduction: An anecdote about Bt Brinjal (Eggplant) 导言：一则奇闻——Bt茄子



She answered that it controls insects. I asked if there are other methods of controlling insects. She said, “of course! One can use sprays made of pepper or garlic.” So, I asked, “what is the need for Bt brinjal?” She answered, “The others use so much labour!” I wondered aloud whether there was a labour shortage in India.

她回答说因为Bt能够控制害虫。我问她是否有其他控制虫害的手段。她说，“当然有了！可以喷撒用辣椒或大蒜制成的雾剂。”所以我就问，“那为什么还要研究Bt茄子呢？”她说，“其它方法要耗费大量的人力！”我真想知道印度是不是存在劳动力短缺问题。

What is the goal of agriculture? 农业的目标是什么？



Like all vegetables in most parts of the world, brinjal has been part of mixed farming systems, which:

- 1. provide the *livelihoods* of small farmers (both their work and their way to meet needs),
- 2. are central to resilient farming systems and healthy diets in the same regions
- 3. connect through regional markets to regional cuisines

和世界上大多数地区的所有蔬菜一样，茄子一直都是混合农事系统的组成部分。它：

- 1. 为小农提供了**生计**（既是他们的工作，也是他们满足所需的方式）；
- 2. 对适应性强的当地农事系统和健康饮食而言十分重要；
- 3. 在地区市场出售，是地区菜系的组成部分。

What is the goal of agriculture? 农业的目标是什么？



~20 years ago, **for the first time**, vegetables began to be integrated into international supply chains as supermarkets became transnational contractors with farmers in the global South.

约二十年前，超市成为南半球农民的跨国包销商，蔬菜也首次被纳入了国际供应链。

The primary food commodities that **are historically organized** through corporate-dominated world markets – and recently also global finance – are a small number of cereals and oilseeds (e.g. maize, wheat, soy), which are used heavily for animal feed and for fuels.

从历史上看，由公司主宰的（以及近年来由全球金融主宰的）世界市场上出售的初级食品是少数谷物和油籽（如玉米、小麦、大豆），多用作动物饲料或燃料。

In these systems, the overarching goal is *profits* rather than *livelihoods*

在这些体系中，首要目的是利润，而非生计。

Whose “labour efficiency”? 谁的“劳动效率？”



Why would brinjal be subject to the same criteria of *labour efficiency* as those few global commodities? 为什么茄子也如同这些少数的全球商品，遵循同样的劳动效率的标准？

1. “efficiency” in farming for profit “saves” *labour costs* by **reducing number of workers**
 - a. calculates all labour as a cost
 - b. (usually) buys all inputs, including seeds
 - c. wants to reduce costs in each profit cycle → short term incentive for soil and water degradation

1. 对于目标是利润的农业，“效率”是：通过减少工人数量“节约”了劳动成本。
 - a. 将所有的劳动力作为成本来计算
 - b. 全部的农资，包括种子，（通常）都需要购买
 - c. 希望在每一个利润环节减少成本→对短期利益的关注致使水土退化。

Whose “labour efficiency”? 谁的“劳动效率”

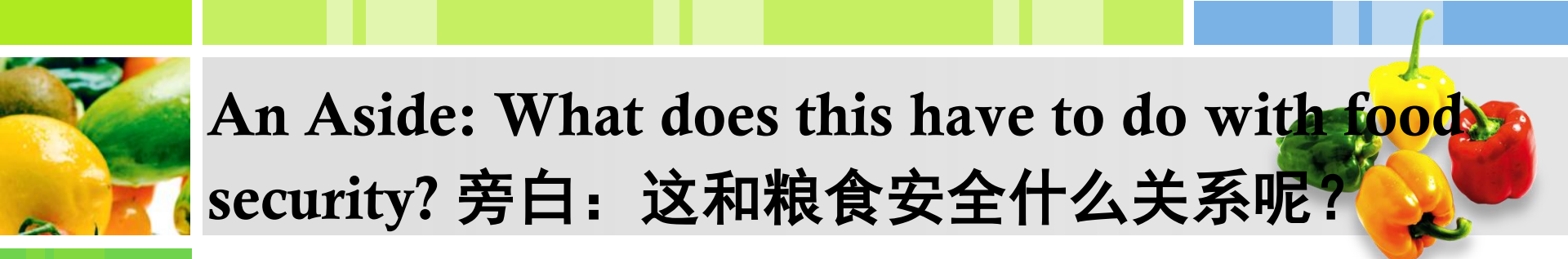


2. “efficiency” in farming for livelihood “saves” *labour time* for any crop **to benefit the whole farm and the farmers**

- a. calculates labour as effort not money (but may hire in and out)
- b. chooses what to buy, what to sell, and what to keep on the farm
- c. considers lifetime and descendants → long term incentive for soil and water improvement)

2. 对目标是生计的农业，“效率”是：节约了种植每一种作物的劳动时间，整个农业和农民因此获益

- a. 计算劳动量，而不是劳动力的费用（但也可能雇佣或出售劳动力）
- b. 农民选择购买什么，出售什么，以及农场里留下什么
- c. 考虑的是一辈子和子孙后代 → 对长期利益的关注促使水土得以改良




An Aside: What does this have to do with food security? 旁白：这和粮食安全什么关系呢？

Farmers who pursue their livelihoods also eat and buy food, and are a majority of the “food insecure” people in the world

致力于养家糊口的农民也需要食用和购买粮食，他们占了全世界“粮食不安全”群体的大多数。

Therefore, ensuring farmer livelihoods is a big way to ensure food security (de Schutter)

因此，保证农民的生计是向粮食安全迈进了一大步。(de Schutter)



An Aside: What does this have to do with food security? 旁白：这和粮食安全什么关系呢？

By contrast, evicting farmers to “save labour” – which has been a pillar of modernizing farming – is a dangerous strategy.

现代农业的支柱——消灭农民以“节约劳动力”，反而是一项危险的举措。

Keeping farmers on the land means focusing on cultural/regional food crops, finding ways to support farm livelihoods, and stabilizing regional food prices (Losch, et. al. World Bank 2012)

让农民留在土地上意味着强调带有当地文化的、地区的粮食作物，找到支持农场生计的方法，稳住地区粮食价格 (Losch, et. al. World Bank 2012)

How did these two possible futures for brinjal arise? 茄子种植的两种可能未来?



Like **Monoculture** Potatoes?
如单一种植的土豆?



Part of **Polyculture**?
还是成为混合种植的一部分?



(Andhra Pradesh 印度安得拉邦)

History of Capital and Livelihoods: Outline I

资本与生计的历史：概要 I



- I. **Two Ways to Think about History of Farming** 思考农业历史的两种方式
- II. **Farming in Human History: Diversity of Cultures and Crops** 人类历史上的农业：文化与作物的多样性
- III. **Colonial and Modernist Agriculture: 殖民地农业与现代农业**
 - **Monoculture of Some Grains (and increasing dis-articulation of crops and livestock within monoculture landscapes)** 某些单一种植的作物（其中作物与牲畜之间的关联日益脱节）
 - **Marginalization of many grains, including rice, but only in world markets not in fields, regional markets, and cuisines** 世界市场上许多谷物（包括大米）被边缘化，但田地、地方市场和餐桌上还未如此

History of Capital and Livelihoods: Outline II

资本与生计的历史：概要 II



- IV . **Secret History of Colonialism: evolving and emergent gardens and cuisines** 殖民主义的隐秘历史：不断演化和新出现的菜园与菜系

- V . **Farming for a Resilient Future: Diversity and Collaboration Between Science and Farmer Knowledge** 为了一个有恢复能力的未来：多样性以及科学和农民知识的珠联璧合



I. Two Ways to Think About History of Farming 思考农业历史的两种方式

“From agricultural revolution to agricultural revolution”: adapted from Mazoyer and Roudart 2006 从农业革命到农业革命，改编自Mazoyer and Roudart 2006

- ❑ *Cereals in antiquity and (European) Middle Ages* 古代和（欧洲）中世纪的谷物
 1. *cereals, pasture, manual and animal power* 谷物，草场，人力与畜力
 2. *cereals with fallow and animal power* 休耕并使用畜力的谷物
- ❑ 16-19 centuries: 16—19世纪
 1. *Cereals and feedgrains (legumes) without fallow (integrated with livestock)* 无休耕、与牧业契合的谷物和饲料作物（豆类）
 2. *Settler-colonial cereal and livestock monocultures* 殖民时期的单一谷物和牧业
 3. *Tropical monoculture plantations (fibres, oils, sugar, bananas)* 热带单一作物种植园（纤维，油料，蔗糖，香蕉）
- ❑ 20th century: 20世纪
 1. *Cereals and feedgrains and intensive livestock with machines and chemicals* 谷物和饲料作物，机器及化学品支撑的密集型生产
 2. *Monocultures of export vegetables and fish* 单一种养供出口的蔬菜和鱼

Two Ways to Think About History of Farming

思考农业历史的两种方式



“Grain-Based States” in tension with diverse farming systems (Wolf, Mintz, Scott) 粮食大国与多样化农事系统的紧张关系

❑ 10,000 years of peasants and states : 1万年来的农民和国家

1. Core-legume-fringe (Mintz) 核心—豆类—边缘(Mintz)

2. State-making: 国家的构建

▪ a. *cereals* and armies 谷物与军队

▪ b. hierarchies and population growth 等级和人口增长

❑ Colonial Conquest: 殖民征服

1. *Cereals* and livestock displace swidden diversity 谷物和牲畜的种养取代了焚耕农业的多样性

2. Tropical monoculture plantations (fibres, oils, sugar, bananas) require large labour forces 热带单一作物种植园（纤维，油料，蔗糖，香蕉）要大量的劳动力

3. Multiple farming systems exist around, against, and within monocultures 单一种植和多元农事系统的包含、共存与斗争

❑ Fossil energy and Synthetic Chemical Dependent Monocultures: 依赖于化石能源和合成化学品的单一种植

1. global enclosure of remaining peasantries 全球对剩余农民的圈占

2. cities overtake farming lands and cultures 城市压制了农田和农村文化

3. Universal industrial/corporate “cuisine” 千篇一律的工业化 / 公司化的“菜系”

Diversity/Power Model

多样化 / 权力模式

II. A. Farming in Human History: Diversity of Cultures and Crops 人类历史上的农业：文化与作物的多样性



10,000 years of peasants: 农民1万年来:

Mixed crops/forests/waters; balanced

population 作物、森林和水域的混合，平衡的人口增长



The Three Sisters
Corn * Beans * Squash

Chinampas (1912)
and fiesta, Mexico 墨
西哥查那巴斯 (1912)
和狂欢节



Sidney Mintz: 西敏司:

Every peasant cuisine is based on 3 elements, which provide complete nutrition and distinctive flavours: 每份农民食谱都基于3个因素，为农民提供了全面的营养和独特的口味

1. Core= Starchy staple (cereal or tuber) 核心 = 淀粉类主食 (谷物或块茎)
2. Legume =vegetable protein (e.g., bean or pea) 豆类 = 蔬菜类蛋白质 (如青豆和豌豆)
3. Fringe = flavours (animal protein and many cultivated and wild plants) 边缘 = 风味 (动物蛋白以及种植的和野生的植物)

These are also agronomically sustainable: 也有农学上的可持续性

1. Grain or tuber 谷物或块茎
2. Nitrogen fixing plant and/or animal 固氮作物，或动物
3. Diverse cultivated and wild plants, including tree, savannah, or wetland species 多样的种植或野生植物，包括树以及草原或湿地的物种

And socially sustainable: redistributive feasts 以及社会的可持续性：再分配盛宴

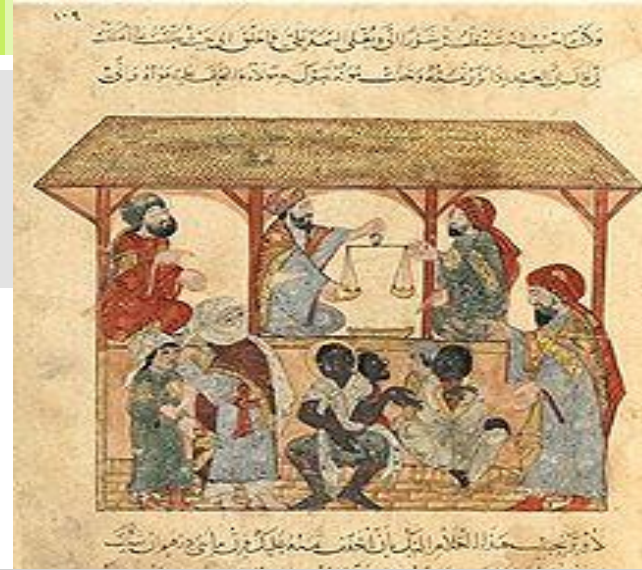


II.B. Farming in Human History: Diversity of Cultures and Crops 人类历史上的农业：文化与作物的多样性

10,000 years of state-making: *cereals*

Armies; Hierarchies; population for labour & war

1万年来国家的构建：谷物，军队，等级，劳动人民，战争



▲ 13th century slave market in Yemen 13世纪也门的奴隶市场



▲ 18th century stone inscriptions from Java show kings levied taxes in rice 18世纪爪哇岛石刻，记述了国王如何征收大米税

▲ Depiction of socage (serfdom) on the royal estate, feudal England, ca. 1310 封建时期的英格兰，皇室农役租佃图，约绘于1310年

III. Colonial and Modernist Agriculture: Monoculture of a Few Grains and Oilseeds 殖民地农业与现代农业：某些单一种植的作物和油籽



Marginalization of many others 许多其它作物的边缘化



Quinoa (now a “niche”
in North American markets)
藜麦，北美市场上的新宠



Finger Millet 龙爪稷

Cassava 木薯



European colonial rule → rice restricted to regional markets, both endogenous and for colonial plantations in Asia 欧洲殖民地法则 → 无论是本土还是亚洲殖民地种植园，所产大米只供应本地市场



Rice was exported from colonial Indochina to Asian colonies of several European empires, often for plantation workers 印度支那所产大米出口到几个欧洲国家在亚洲的殖民地，常常供应种植园的工人。



There Emerged Two Ways to Organize Soy 大豆出现了两种组织方式



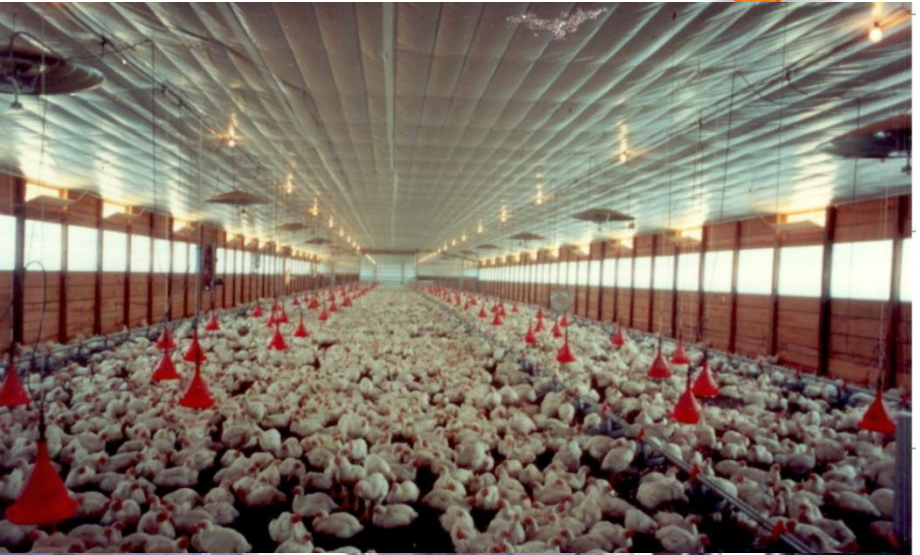
Soy monoculture (Monsanto seeds) and Soy traders in Chicago 单一种植（孟山都种业）和芝加哥的大豆贸易商



Vietnamese Street Market and Terraced Farming 越南街边市场和梯田农业



Monoculture is For Industrial Diets 为工业化饮食提供的单一种植





Replacing the world's agronomic and culinary diversity with standard foods based on wheat and cattle (fed with soy and maize). 用小麦和牛肉（饲料为大豆和玉米）制作的标准食物取代了世界上农业和饮食的多样性



Mintz again: A diet completely different from 10,000 years of diverse cuisines: 2 new "basics" of industrial "cuisine: 1. sugar 2. fat 西敏司：这和1万年以来的多样化饮食全然不同了。工业化饮食的新基本要素，一是糖，二是脂肪。



BUT EMERGING ALSO...

但很快也会出现.....

IV. Secret History of Colonialism: evolving and emergent gardens and cuisines: Columbian Exchange (Crosby) and creole cuisines: 殖民主义的隐秘历史: 不断演化和新出现的菜园与菜系: 哥伦布大交换 (克罗斯比) 和混杂菜系



Aloo gobi: potatoes, Cauliflower, Indian Spices
印式土豆花椰菜: 土豆, 花椰菜, 印度香料



A chilli hot pot characteristic of Szechuan cuisine 四川鸳鸯辣锅



Jamaica: Rice (Asia/Africa) 'n **Peas** (Africa), **sweet potatoes and green beans** (South America) and **Chicken** (Asia) made with Jamaican jerk spice, prepared with (various origins): **allspice** (called "pimento" in Jamaica), **Scotch bonnet peppers, cloves, cinnamon, scallions, nutmeg, thyme, garlic, and salt.** 牙买加: 米饭 (亚非) 配豆子 (非洲), 牙买加烟熏香料鸡肉 (亚洲) 配甜薯和青豆 (南美), 香料来自各地: 甜椒 (牙买加语叫甘椒), 苏格兰盖椒, 丁香、肉桂、肉豆蔻、百里香、葱、大蒜和盐

Diversity Can Be Increased or Decreased by Transplantation 移植可能增加或减少多样性



Tomato versus tomatl (Barndt) 西红柿对蕃茄 (Barndt)

Hothouse tomato
温室西红柿



Ho Farms in Kahuku, Hawaii. 夏威夷卡胡库的霍尔农场

Corn Meets Maize (Baker) 玉米遇见苞谷 (Baker)

► maize heap at the harvest site, India 印度，丰收的玉米



▲ Harvesting maize during the record 2009 season in Jones County, Iowa 爱荷华州琼斯县2009年玉米大丰收

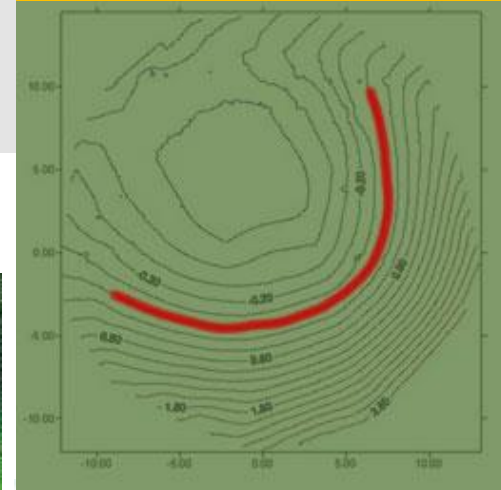




V. Farming for a Resilient Future: Diversity and Collaboration Between Science and Farmer Knowledge
为了一个有恢复能力的未来：多样性以及科学和农民知识的珠联璧合



Swale contour map
洼地等高线图



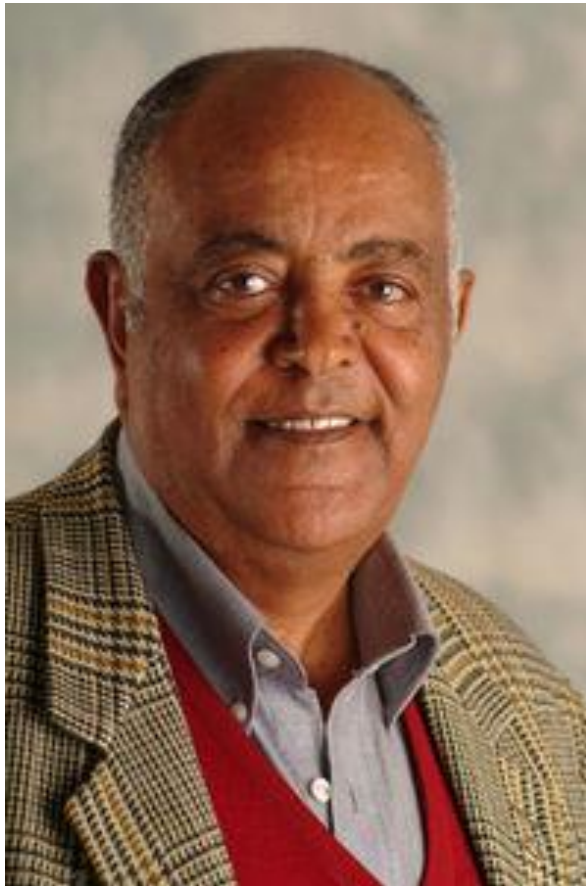
A beautiful example of raised bed mandala permaculture from Brazil
曼陀罗永久培育场：来自巴西的精彩案例

Miguel Altieri,
Agroecologist 农业生态学家米盖尔·阿尔提耶里

Community Seed Bank:
社区种子库
Image Gregory McNamee

[IAASTD: How best to support rural livelihoods, food security, and Ecological sustainability? A: science in support of small farmers](http://www.unep.org/dewa/agassessment/reports/IAASTD/EN/Agriculture%20at%20a%20Crossroads_Synthesis%20Report%20(English).pdf)
[http://www.unep.org/dewa/agassessment/reports/IAASTD/EN/Agriculture%20at%20a%20Crossroads_Synthesis%20Report%20\(English\).pdf](http://www.unep.org/dewa/agassessment/reports/IAASTD/EN/Agriculture%20at%20a%20Crossroads_Synthesis%20Report%20(English).pdf)

Dr. Melaku Worede of Ethiopia, Right Livelihood Award 2010
埃塞俄比亚梅拉库·沃瑞德博士，2010年正确生活方式奖获得者




The Right Livelihood Award

for outstanding vision and work on behalf of our planet and its people



Presented By
THE SOLOMON DAWIT FOUNDATION In collaboration with USC CANADA

ENEBLA!
እንብላ LET'S EAT!
AN ETHIOPIAN FEAST
WITH MUSIC & DANCE



Special Guest and Storyteller
Dr. Melaku Worede
Internationally Celebrated Champion of Farmers' Rights

Saturday April 27, 2013 • 6 - 11 pm
Sandy Hill Community Centre (250 Somerset E.)
Tickets \$25, available at Habesha Restaurant (574 Rideau),
Blue Nile Restaurant (577 Gladstone), USC Canada (705-56 Sparks)

solomondawitfoundation.org • 613.884.7487 • usc-canada.org



Thank You!

