

PLS 341

Politics of Development

Week 3, Lecture 2:
Geography—evidence

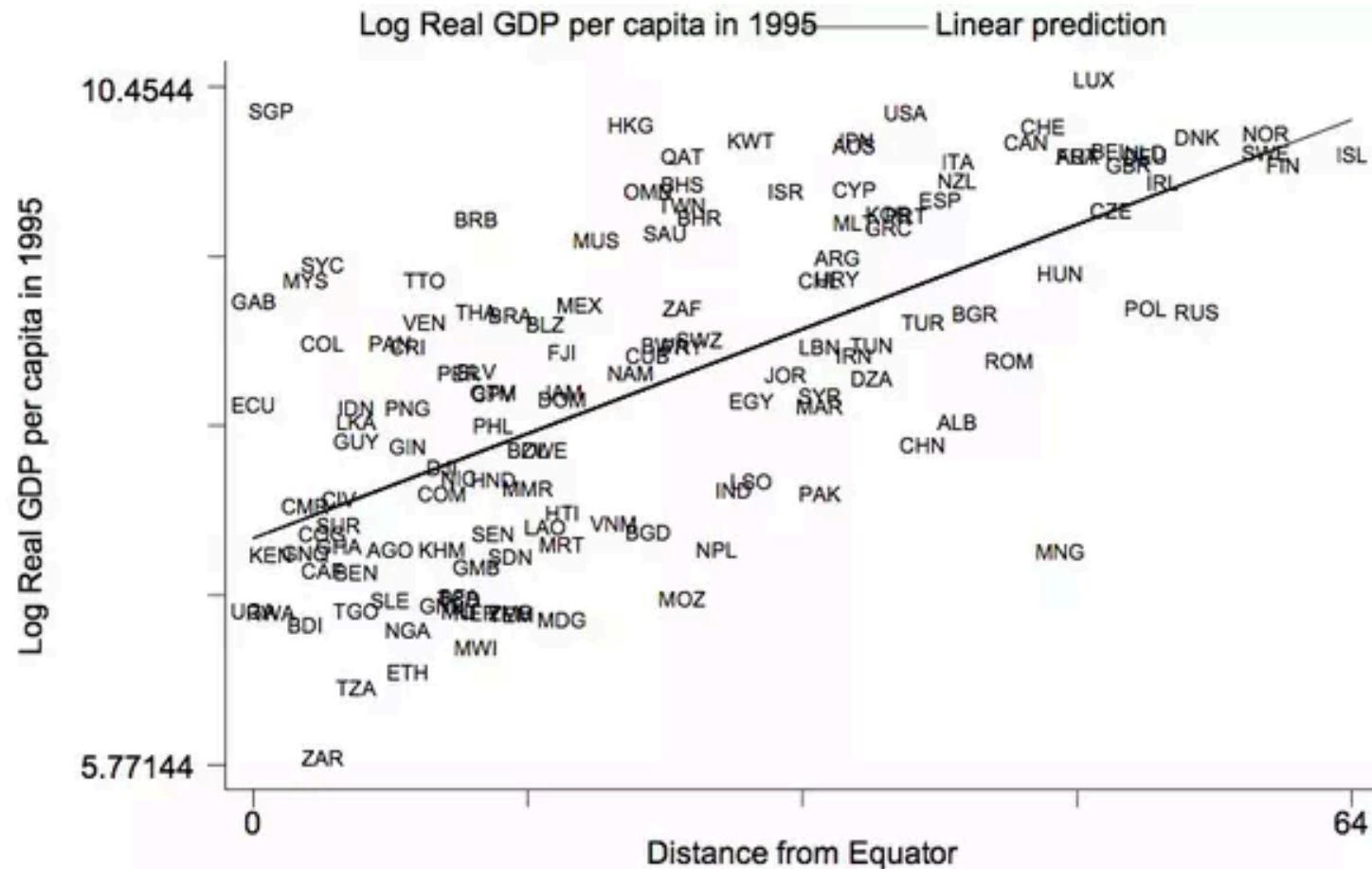
Recap

- Claimed developmental effects of geographic / environmental conditions:
 - Direct causal relationship
 - Character and race
 - Agricultural and pastoral potential
 - Disease
 - Trade and technological innovation

Plan for today

- Empirical evidence of developmental effects of geographic / environmental conditions

Geographic distribution of development



Agriculture

- Early domestication —>
- Emergence of knowledge producers —>
- Knowledge growth —>
- Economic development:
 - Olsson, Ola, and Douglas A. Hibbs. 2005. "Biogeography and Long-Run Economic Development." *European Economic Review* 49(4): 909–38

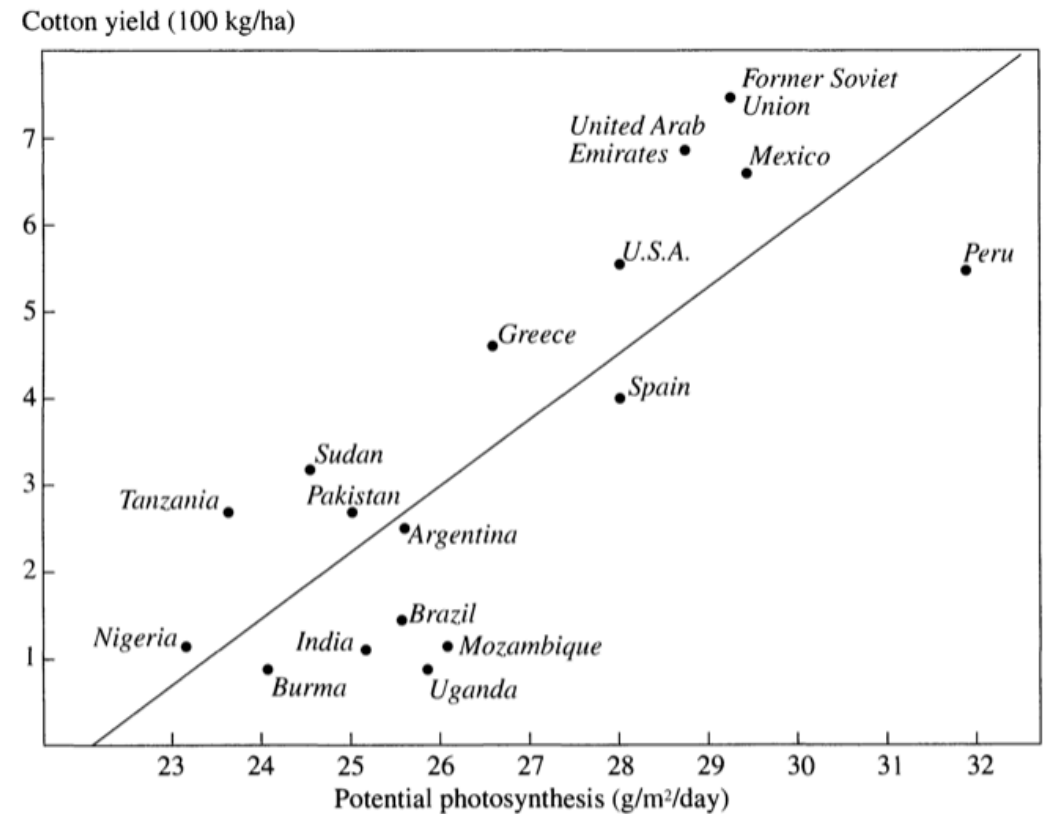


Agriculture

- Agricultural production in contemporary Africa:
 - Low photosynthetic potential
 - High temperatures
 - High evapotranspiration
 - Low and variable rainfall
 - Highly weathered soils
 - Veterinary diseases
 - Plant and animal pests

- Bloom, David, et al. 1998. "Geography, Demography, and Economic Growth in Africa." *Brookings Papers on Economic Activity* 2: 207-295.

Figure 4. Effect of Potential Photosynthesis on Cotton Yields, Selected Countries^a

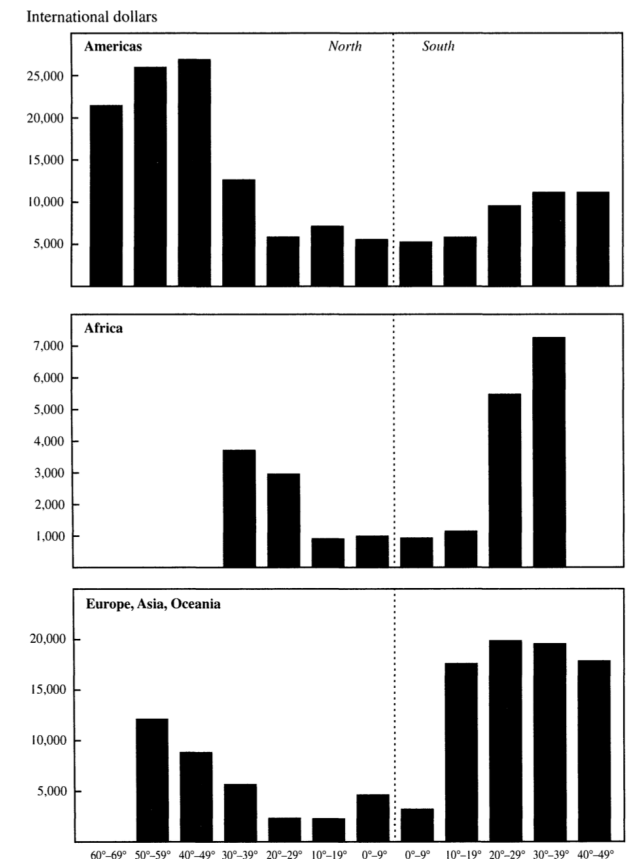


Agriculture

- “Sub-Saharan Africa is the tropical region *par excellence*, with 93 percent of its land area lying between the Tropic of Cancer and the Tropic of Capricorn. At the root of Africa’s long-term growth crisis is Africa's extraordinary geography.”

- Bloom, David, et al. 1998. “Geography, Demography, and Economic Growth in Africa.” *Brookings Papers on Economic Activity* 2: 207-295.

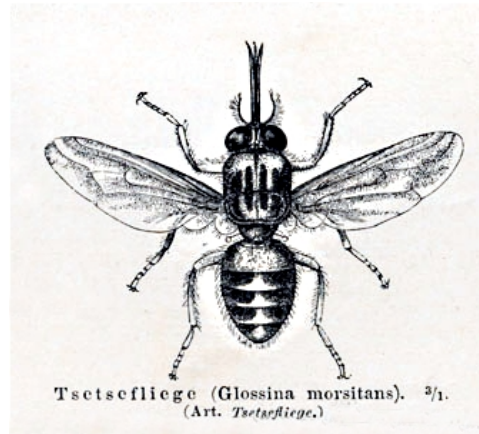
Figure 3. GDP Per Capita by Latitude, Selected Regions, 1995*



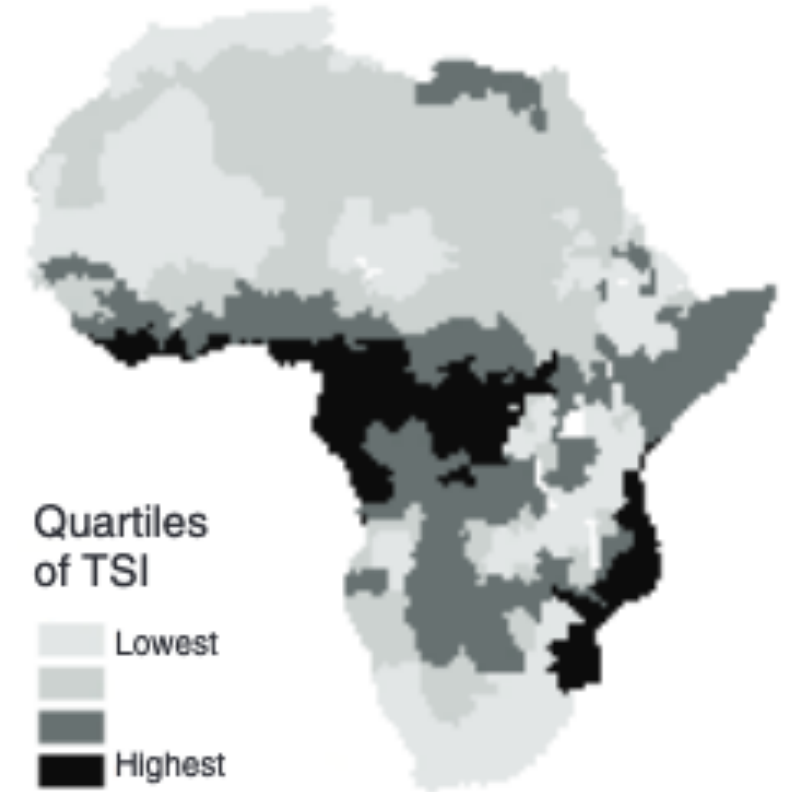
Disease

- Presence of the tsetse fly —>
- Limited use of domesticated animals —>
- No adoption or invention of technologies such as the plow —>
- Weakened ability to generate agricultural surpluses and transport goods + limited centralization

- Alsan, Marcella. 2015. "The Effect of the Tsetse Fly on African Development." *American Economic Review* 105(1): 382–410.

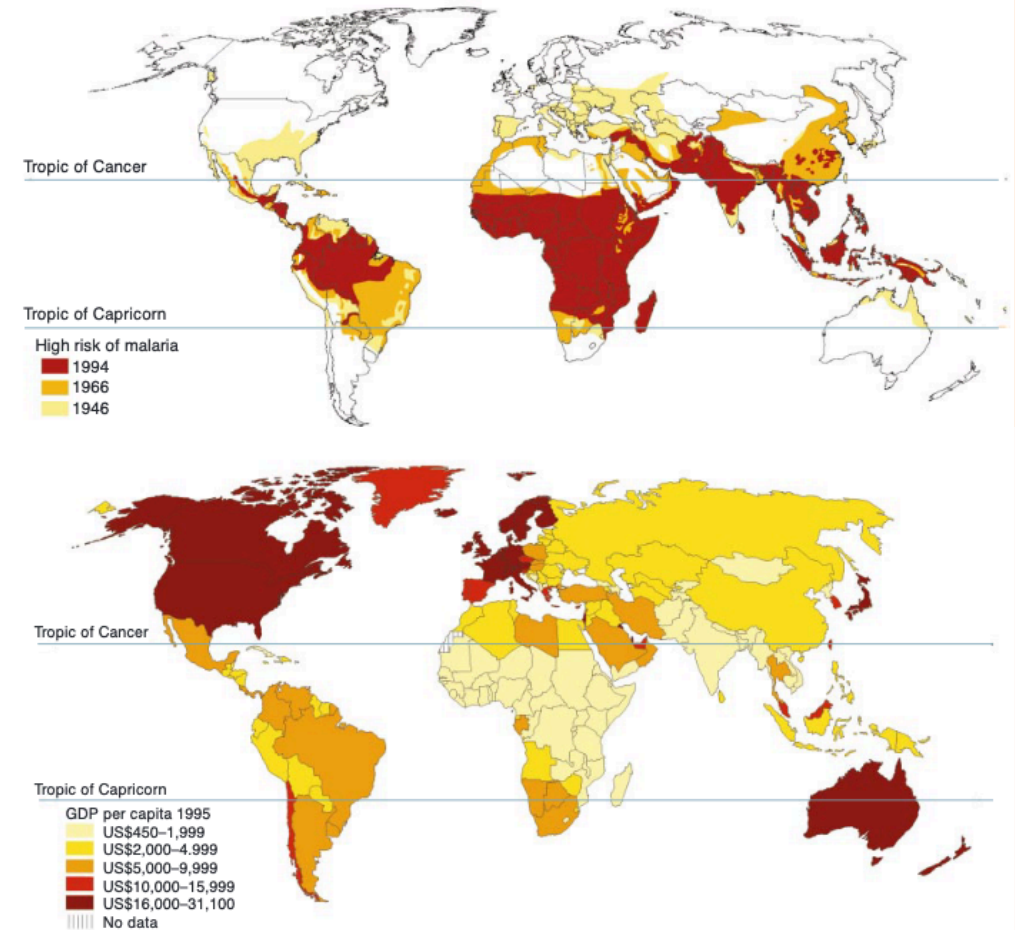


Panel A. TseTse suitability index (1871)



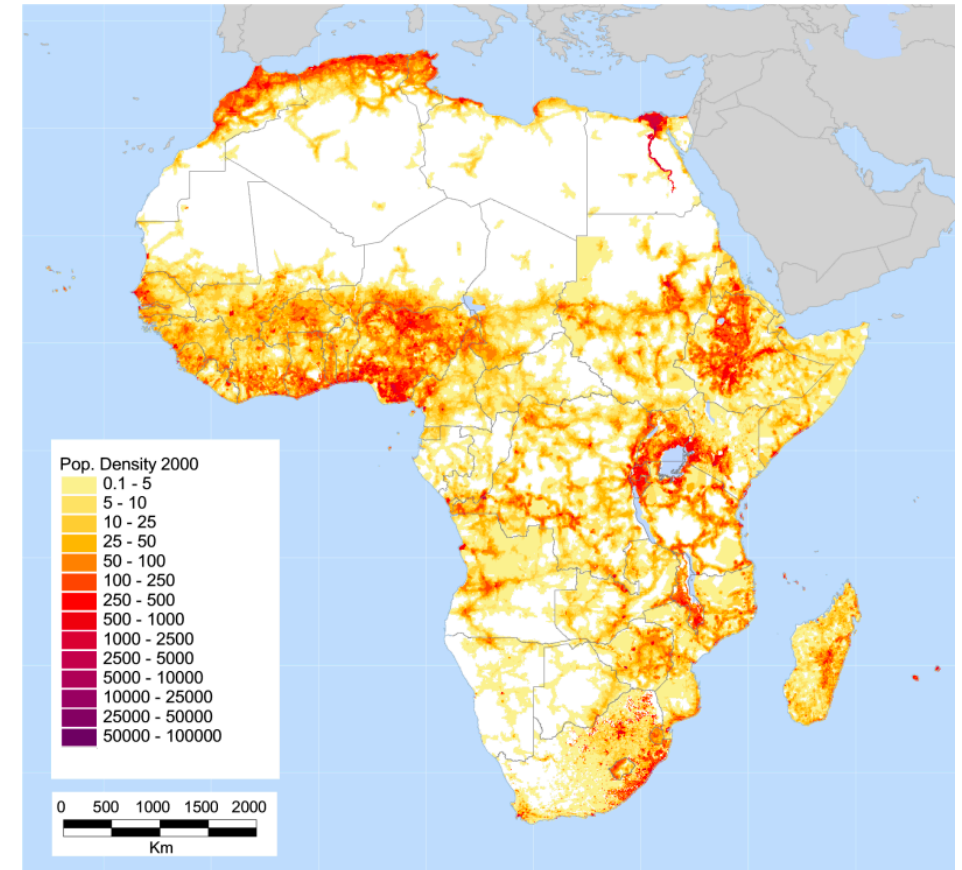
Disease

- Effects of malaria:
 - 1.3% lower annual economic growth (1965-1990)
 - 50% lower GNP in the long term
 - Gallup, J. L., and J. D. Sachs. 2001. "The Economic Burden of Malaria." *American Journal of Tropical Medicine and Hygiene* 64(1-2 SUPPL.): 85-96.

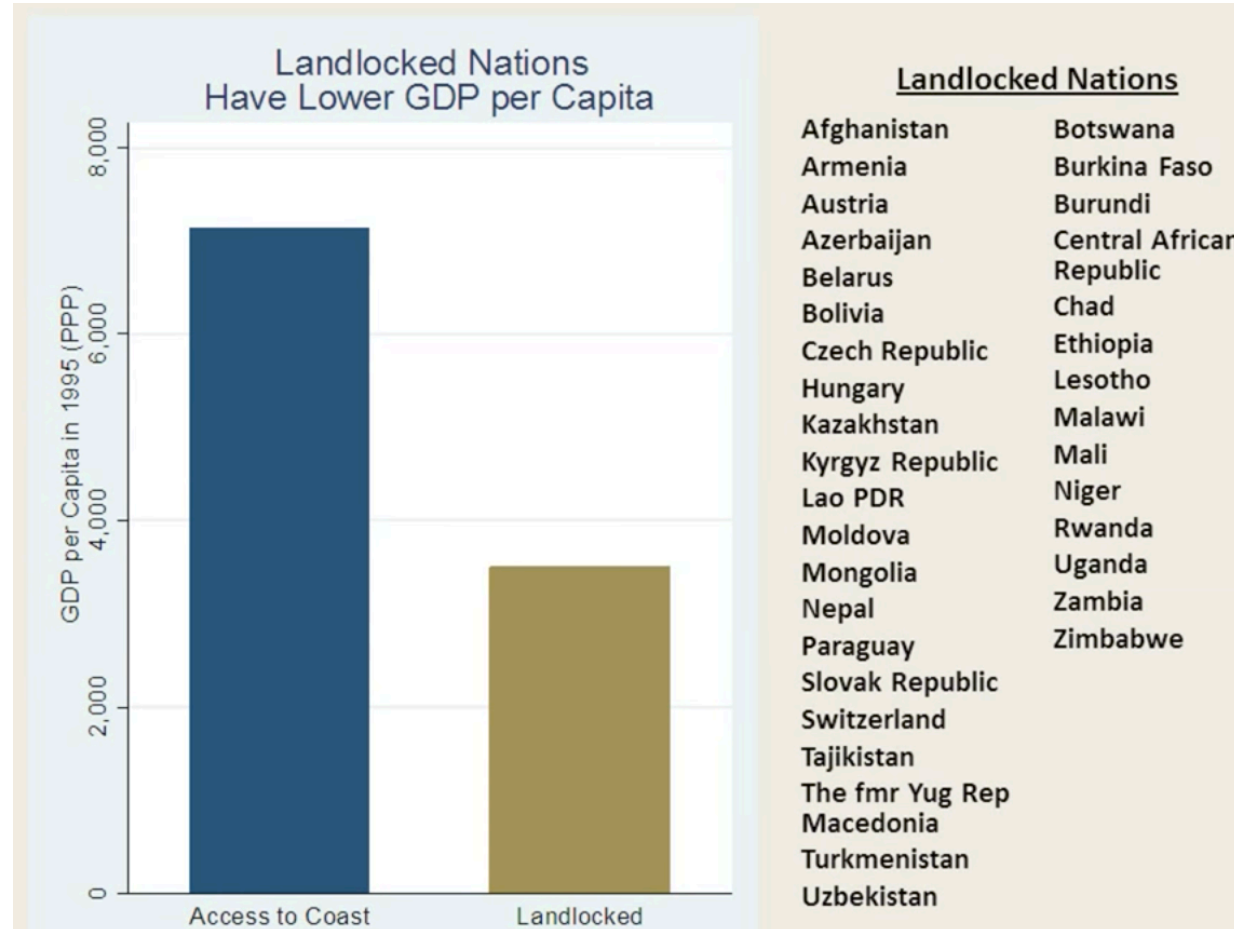


Trade

- Transport barriers:
 - Short coastline
 - Few natural coastal ports
 - Populations generally far from the coast
 - Absence of navigable rivers
 - High proportion of landlocked states
 - High proportion of populations within landlocked states
- Bloom, David, et al. 1998. "Geography, Demography, and Economic Growth in Africa." *Brookings Papers on Economic Activity* 2: 207-295.



Trade



Gallup, John L., Jeffrey D. Sachs, and Andrew D. Mellinger. 1999. "Geography and Economic Development." *International Regional Science Review* 22 (2): 179–232.

Geography and development—and institutions

- Easterly and Levine:
 - “We find evidence that tropics, germs, and crops affect development through institutions. We find no evidence that tropics, germs, and crops affect country incomes directly other than through institutions, nor do we find any effect of policies on development once we control for institutions.”
 - Easterly, William, and Ross Levine. 2003. “Tropics, germs, and crops: how endowments influence economic development.” *Journal of Monetary Economics* 50 (1): 3-39.

Geography and development—and institutions

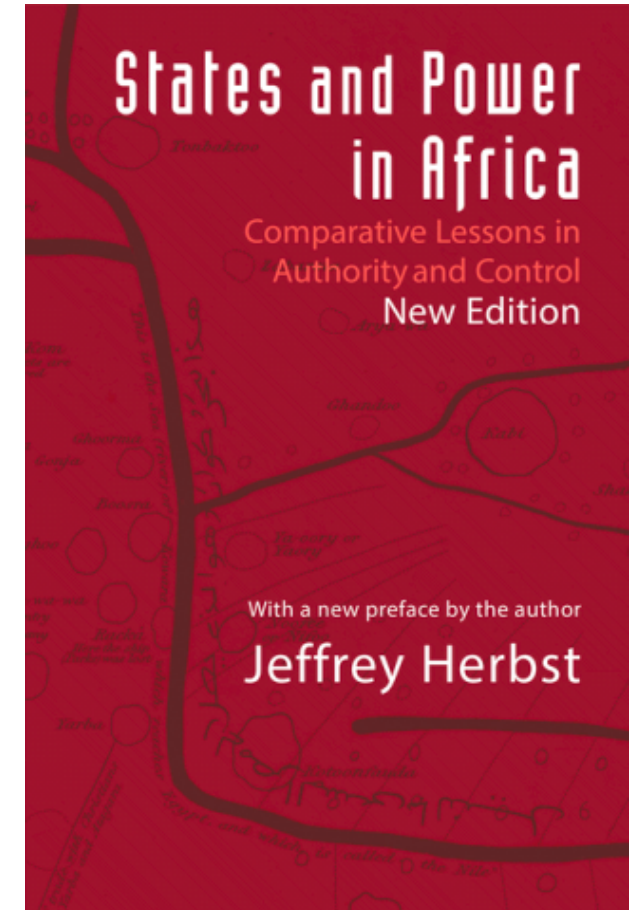
- Latin America:
 - Large and concentrated factor endowments:
 - Brazil and the Caribbean: production of sugar and other highly valued crops
 - Mexico and Peru: rich mineral resources —>
 - Highly unequal distribution of wealth, elite persistence and stability —>
 - In the long term, low economic development
 - Sokoloff, Kenneth, and Stanley Engerman. 2000. "History Lessons: Institutions, Factor endowments, and Paths of Development in the New World." *Journal of Economic Perspectives* 14 (3): 217-32.

Geography and development—and institutions

- Canada and the United States:
 - More limited factor endowments: production of grains and hays, based on laborers of European descent who had relatively high and similar levels of human capital —>
 - Relatively equal distribution of wealth —>
 - Large middle class, small elites —>
 - High economic development
 - Sokoloff, Kenneth, and Stanley Engerman. 2000. "History Lessons: Institutions, Factor endowments, and Paths of Development in the New World." *Journal of Economic Perspectives* 14 (3): 217-32.

Political geography and political development

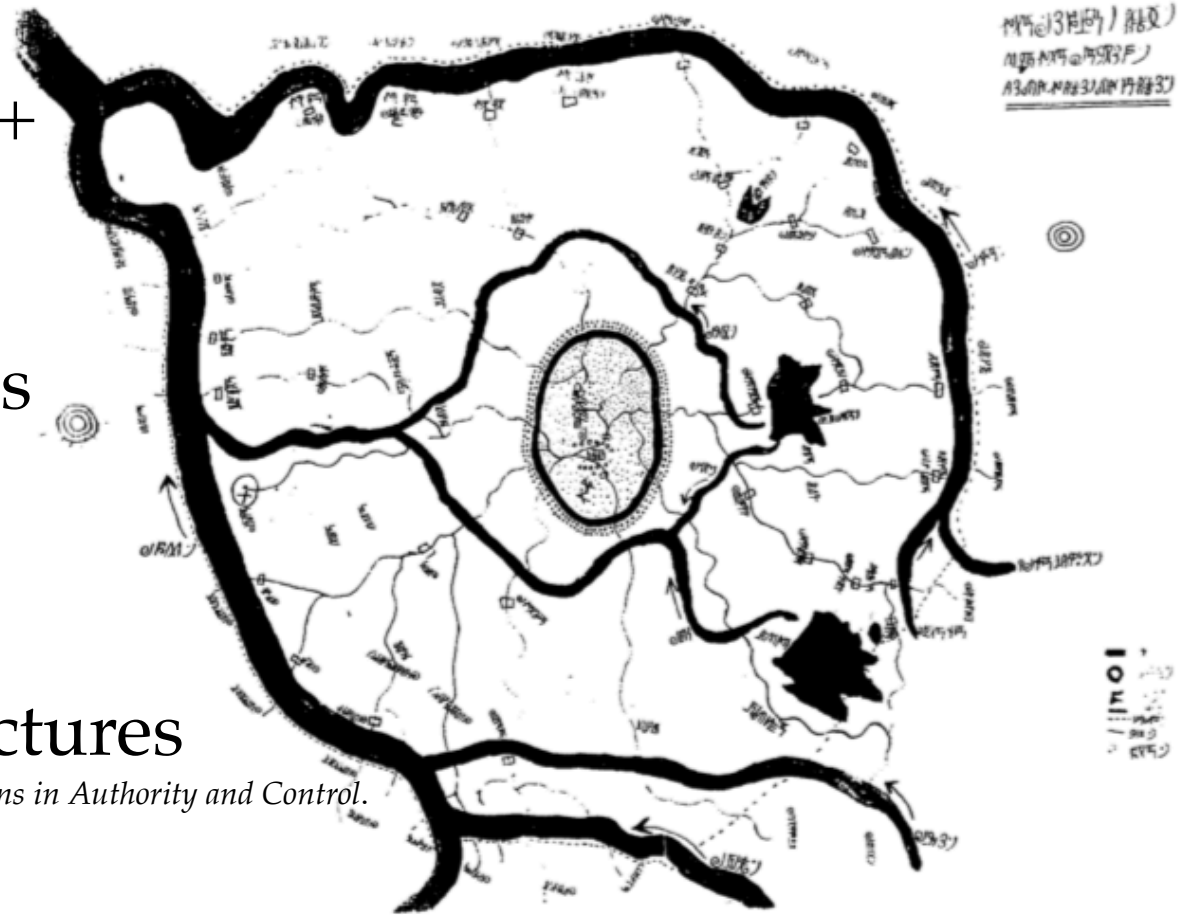
- Rulers' considerations:
 - Cost of expanding the domestic power infrastructure
 - Nature of national boundaries
 - State system design



Political geography and political development

- Daunting physical geography +
- Limited technologies of coercion +
- No security imperative to control the hinterlands —>
- High expense and limited benefits of projection of power —>
- Cost calculations —>
- Direct control only over the political core and weak state structures

- Herbst, Jeffrey. 2000. *States and Power in Africa: Comparative Lessons in Authority and Control*. Princeton: Princeton University Press.



Implications

- Geography —>
- (Colonial) history —>
- Institutions