

Book Reviews

Kathryn M. de Luna. 2016. *Collecting Food, Cultivating People: Subsistence and Society in Central Africa*. New Haven: Yale University Press.

Reviewed by Amy Freitag

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Cultivating Food, Cultivating People challenges many of the historical narratives researchers often hold up in explaining the development of food systems. First, the region of focus, the Botatwe-speaking part of central Africa, has largely been left out of these narratives because of its unusual dispersed political structure. Second, the book pushes readers to ask why a culture may choose a certain type of food system. This decision may not involve not just efficiency, but also resilience in a variable ecosystem, and involve interplay with social power dynamics.

The book moves through time, using largely a linguistic approach to describe the evolution and dispersal of pre-Botatwe foods and cultures from around 1000 BCE to 1700 AD. Over that long span of time, one of the biggest messages is that the trajectory of food system growth is not monolithic nor does it follow a single, straight path. The shifting climate in central Africa from wet to dry and back again left its residents with a desire to mitigate risk through multiple streams of food production. In any given year, one form would be “best,” and there was great value in maintaining open options.

Tied to the milieu of food production systems is the unique social structure of the region. The common understanding of the evolution of food systems is the story of a march of progress from hunter-gatherer societies to agriculture and animal husbandry. This account also rests on a social structure evolving towards central power, and a patriarchal nuclear family structure. Instead, de Luna argues that the hunter-gatherer community in the Botatwe-speaking region was more decentralized, with many distributed nodes of power, and with a form of matriarchal family structure that awarded status by multiple kinds of contributions to society. This society changed in tandem with the local environment, shifting from grain-based agriculture to pastoralism depending on which product best fit the climate regime of the time. This non-traditional and dynamic view of social design can have lessons for how we categorize current societies as well.

The linguistic approach used to describe the changes in Botatwe food and culture through time allows a methodological lens well tailored to a society that did not leave much behind for traditional archeological and historical techniques. While the analysis through time does include conclusions from examining pottery, jewelry, and gravesites, the nature of the diversity and adaptability

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of Botatwe-speaking people is perhaps best captured in creating a linguistic diaspora. Words borrowed from neighboring languages can tell much about trading patterns, social learning, and intermarriage in a region that has left little in the way of archeological footprints.

This linguistic approach is also one of the book's weaknesses, as the audiences that stand to gain the most from many of the discussions are also likely to be unfamiliar with the primary methodologies and disciplinary linguistic conventions used throughout the book. For example, some discussion of how one pins down a particular time frame to a word shift would have been enlightening. The depicted family tree of languages and accompanying maps appear to have much in common with molecular clock methods in evolutionary biology, so clarifying the linkages might help potential interdisciplinary applications of the book.

One other weakness is that the narrative waits until the last chapter and epilogue to add in greater details about the culture that come from other sources of evidence like copper jewelry, pottery, glass beads, and ivory. These sources enrich the history with insight into trade patterns and interactions with distant empires, and further demonstrate the complexity of the social networks in the region. This information would have been nice to read alongside the linguistic evidence. The author also admits that, even with linguistic evidence, the cultural stories of people and towns absorbed by the expansion of the Botatwe (through marriage or violence) are perhaps forever lost.

The strengths of this book lie in its broad conclusions that serve as both an interesting case study that defies so many stereotypes of the region and the time period of study, as well as a lesson for thinking about how modern cultures are forming in response to their food environment. The biggest strength of this book lies in its contribution to an underrepresented history of Africa, both in the region and time period of study. The Botatwe speakers serve as a good example of the diversity of social structures both in Africa and around the world, and in the types of factors researchers need to look at when describing a culture.

The value of linguistics alongside the more traditional disciplines to approach the questions discussed in this book speaks to the need for interdisciplinarity for understanding aspects of society that are not preserved well in the sands of time. This approach allows the book to cover time periods and geographies that have not received much research attention, and to document different kinds of social structures than were considered common for the continent. More surprises likely are around the corner in applying these methods.

Finally, this book is a welcome case in thinking about modern societies that mix hunting, gathering, agriculture, animal husbandry, and other kinds of food production. Botatwe-speaking historical Africa reminds us through the pages of this book that there are advantages in hunter-gatherer lifestyles for increasing community resilience. These structures offer forms of prestige and power outside of government. These lessons will be a welcome example for many fishing communities mixing wild-caught fishing with different forms

of aquaculture and other subsistence activities. The lessons of central Africa carry through time.

Dinar, Ariel, and Yacov Tsur, eds. 2017. *Management of Transboundary Water Resources under Scarcity*. New Jersey: World Scientific Publishing.

Reviewed by Theresa Jedd
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This volume provides a critical focus on the need to plan for a range of climate conditions for some of the world's most vulnerable populations, with special attention to arid and semi-arid regions, and a political science approach to understanding water governance. Geographic coverage includes the Jordan River Basin, Amu Darya, Nile, Mekong, the Colorado, Tagus, and Fergana Valley.

Drought is a naturally occurring phenomenon in each. Similarly, water scarcity—whether caused by decreasing rain, increasing temperatures, or conscious management decisions—is also a historically recurrent feature. Its effects are far-reaching, from decreased ecological function to humanitarian crises. Societies have devised structures and political arrangements to deliver water, and the ultimate test of these structures is how well they hold up during a shortage. The volume's editors assert in the introduction and conclusion that climate change, combined with population growth, will continue to strain water resources in transboundary basins. Appropriately addressing these phenomena requires going beyond legal approaches to include economic, technological, political, and incentive-based mechanisms. The contributors discuss how to implement these practices and how to draw stakeholder countries into the decision-making process.

The volume is organized in three parts. Part I builds an overall understanding of the economic, institutional, and technological aspects of transboundary basins. The authors introduce the concept of a baseline requirement of a per capita minimum volume and its relevance for planning. How we think about this baseline requirement has changed over time. In the first chapter, Yacov Tsur argues that because there are more people on the planet, the water requirement thresholds have dropped from a 1989 "water stress" definition of 1700 cubic meters per person/year to a 1996 definition of "subsistence scarcity" of 100 cubic meters per person/year. Tsur presents forecasts of sustainable supply (the amount that can be used without depleting freshwater reserves) based on UN estimates of population growth, suggesting that by 2030 the natural water supply is likely to fall below 100 cubic meters per person/year. Environmental flows have been caught in the middle of increasing water prices and decreasing crop values, setting up the urgent need to restore natural flows both for human and ecosystem well-being.

The two chapters in Part II cover legal agreements between states, focusing on the borders between United States and Mexico and between Israel and Palestine.

The authors suggest that water banking and transfers may be an alternative in places where treaties are not possible, and they argue that establishing general peace agreements regarding borders may be a prerequisite to water negotiations.

Border delineation can have a chain of governance effects, establishing a basis of diversification for single-source households and irrigators, offering them basic access to drinking water and small farm irrigation when wells and springs are dry. The cases offer a strikingly candid assessment of the difficulties of achieving a treaty between countries in over-allocated basins. Political scientists will be familiar with the difficulties caused by common pool resources, hegemony, and conflict. The basic laws of geography are ever-present, especially when it comes to hydroshed location and positioning along a river and elevation gradient.

Part III covers management arrangements, valuation approaches, and efforts to estimate the economic benefits of alternatives for restoration. The chapters blend considerations of efficiency in water storage and social trade-offs of the delivery infrastructure. One lesson is that, as dams become larger, it is important to consider whether the net gains are worth the costs. The ability to calculate the value of these gains and losses is invaluable for the social planner. When appropriately paired with natural basin features, dams can efficiently deliver water where it is needed. When allocations are balanced according to the weights associated with their intended outcomes (namely large-scale agricultural irrigation and hydropower), the end result can be multilateral cooperation around more than water. At this point, the reader will likely be prompted to return to the thorough econometric case study of the eastern Nile River Basin in Part I to see how this optimization could occur in practice.

Getachew Nigatu and Ariel Dinar see trading water as akin to trading products and services. They use multiple alternative water rights arrangements (WRA) and joint pairing of basin pricing and trades to model net gains for countries in the Nile River Basin through the principle of comparative advantage. For example, if Ethiopia were to focus on hydropower generation and sell excess energy to the other countries, then Egypt would focus on irrigated agriculture, a sector that is relatively efficient. At the same time, they consider how their economic and environmental optimization model (with agriculture and hydropower as the focal demands) fits with the ongoing efforts of the Nile Basin Initiative to build cooperation around preventing resource degradation, addressing water scarcity, and achieving food security.

Water banking allows for nonmarket valuation of environmental flows and ecological restoration if institutions are set up to address basin-wide priorities and design strategic plans to achieve multiple-use objectives. WRA models are designed to accommodate a range of preferences, interactions, and objectives across multiple uses: agricultural, municipal/industrial, and hydropower generation. Recognizing that tradeoffs must be made, different allocation methods can be used. These include “priority” (where, for each step, the network flow solver attempts to satisfy the water users with the highest priority

first), and “objective function” (where each component, benefit, or user is given equal weight). In Chapter 10, Nir Becker and David Katz discuss restorative flows and recreational uses of the Jordan River, including original survey-based research on tourists’ willingness to pay for increased flows and enhanced water quality. They find that all three populations—Jordanians, Israelis, and Palestinians—would benefit from restoration in multiple scenarios.

In sum, this volume provides a variety of solutions and range of regional coverage that stakeholders are likely to find practical. While integrated water resources management may be the gold standard in basin planning, the authors offer a realistic assessment of the tools that can be leveraged in cases where comprehensive planning is unraveled by political pressures. For example, downstream states with weaker negotiating positions can improve their leverage by linking issues like regional trade with upstream countries. The key takeaway for the international relations theorist is that as water becomes scarce, conflict may ensue. With this concern in mind, the contributors present concepts, techniques and models that can facilitate cooperation between countries and sectors.

Dauvergne, Peter. 2016. *Environmentalism of the Rich*. Cambridge, MA: MIT Press.

Reviewed by Robin Broad
American University

With *Environmentalism of the Rich*, Peter Dauvergne has given us another book that will be widely read and cited, and that will become a classic. There are parts of this book that will haunt the reader far into the future. Among them (with no spoilers): Pablo, to whom this book is dedicated, and Dauvergne’s flying dump trucks. So too with his main analytical point: more economic growth, more consumerism, and more corporations selling more so-called environmentally friendly goods, will not save our planet. Moreover, the book is an ideal length and structure, with each chapter readable and focused on a specific topic. It is the model for a book that crosses the academic and trade divide.

In this book, Dauvergne examines the successes and failures of environmentalism driven by the middle classes, the wealthy, and corporations of the richer nations. He highlights a number of victories of this “environmentalism of the rich,” but points out how their wins are far outweighed by the damages of overconsumption and runaway growth.

In the second part of the book, Dauvergne focuses on so-called eco-heroes of Northern environmentalism, including Jane Goodall, Bruno Manser, and Paul Watson. He also examines key Northern-headquartered environmental groups including The Nature Conservancy, Conservation International, and the World Wildlife Fund: big environmental groups that raise much of their funds from the wealthy and from global corporations. This is a crucial and

unseemly underside to environmentalism of the rich. But we should not be surprised that groups that take money from big corporations and governments do not speak truth to power. The best companion reading to Dauvergne on this is the classic (and still timely) article written by Max Chapin (2004) on Conservation International, the World Wildlife Fund, and The Nature Conservancy.

Dauvergne's title is important, and readers need to keep it in mind as they read his book. Even though Dauvergne himself is clear on his focus and his topic, some readers may leave his book thinking that the book is about global environmentalism (especially because of the unfortunate choice to title the second part of the book "Global Environmentalism"). It is not. It is explicitly about environmentalism of the rich. Dauvergne focuses on what is wrong with efforts to save the environment that concentrate on growth and consumption, and does not put center-stage environmental movements where poorer people act to protect the natural resource base on which their lives depend—what might be termed "environmentalism of the poor." Case in point: fishers who protect their fishing grounds against big trawlers, or farmers in northern El Salvador, self-identified "water protectors," whose multi-year struggle to safeguard their watershed led the government of El Salvador to pass the world's first law banning all metals mining (Broad and Cavanagh, 2017).

The distinction between environmentalism of the rich and environmentalism of the poor is not geographic. Environmentalism of the rich can be found among elites in Southern countries as well as among elites in Northern (developed) countries—what might be termed environmentalism of the global 1 percent. And environmentalism of the poor can be found in Northern countries (such as the Standing Rock Sioux, who also term themselves water protectors) as well as in Southern countries—an environmentalism of the global 99 percent.

In other words, as Dauvergne's book suggests between the lines, there is not one environmental movement or paradigm. The full picture requires his gloomier prognosis on environmentalism of the rich. But it also needs the hope that many find on the ground with ordinary poorer people doing extraordinary things to protect the environment, often at great risk. Dauvergne frames environmentalism of the rich as increasing in power and dominance, arguing that "environmentalism has increasingly come to reflect the interests and comforts of those with the most money and the most power" (p. 141). What at least some current Southern-based research suggests is that environmentalism of the 99 percent is also on the rise in many parts of the world. Could we possibly be at an unusual moment in history when both are on the rise?

The bottom line of Dauvergne's research on the big US environmental groups is essential to digest: Those with power and wealth who consume far more of the earth's resources will never be central to effective solutions. Nor will the world be saved by an "our common future" paradigm of environmentalism that pretends that we live in a world of equity rather than a world where the majority are dispossessed and marginalized in terms of economic, political, and environmental power and resources.

This book should be read and used in classrooms. Dauvergne has given us another beautifully written and essential book—starting with its disturbing sweep of history. His portrayal of the environmental havoc wreaked by economic growth is devastating. This book will help shatter the “environmental Kuznets curve” myth that growth can solve the environmental problem. This book will make some readers uncomfortable in their assumptions about how consumption habits and the so-called corporate responsibility movement will help save the environment and our future. Probing such faulty assumptions and facile solutions is essential, and Dauvergne is to be applauded for this book.

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