CHAPTER 9

Reclaiming Cultural Identity Through Decolonization of Food Habits

Suleyman M. Demi

Introduction

Critical scholars of Indigeneity in North America and globally have argued that decolonization is not arrival at some political destination, but an ongoing and historical process of unlearning deeply internalized perceptions fostered through colonization and domination (Dei, 2002; Thiophene, 1995; Wane, 2006). This chapter, therefore, is a starting point to unlearn

This chapter is part of major research leading to MA thesis title "African Indigenous Food Crops: Their Role in Combating Chronic Diseases in Ghana". Submitted to the Department of Social Justice Education and School of Environment of the University of Toronto, Toronto, Canada.

S. M. Demi (✉)
Department of Social Justice Education of the Ontario Institute for Studies in Education and School of the Environment, University of Toronto, Toronto, ON, Canada
e-mail: suleyman.demi@mail.utoronto.ca

N. N. Wane et al. (eds.), *Decolonizing the Spirit in Education and Beyond*, Spirituality, Religion, and Education,
https://doi.org/10.1007/978-3-030-25320-2_9

some of the Eurocentric theories that I have imbibed in pursuit of my academic career and conversely, re-learn some Indigenous ways of knowing as legitimate forms of knowledge that value personal experience. Before my studies at the Ontario Institute for Studies in Education (OISE), my research interest was focused mainly on how to modernize agriculture to make food available to people in need and also to reduce poverty, particularly in developing countries. My understanding of food at the time was quite narrow as I considered only food items sold on the world market. However, my engagement with a critical scholarship at OISE resuscitated my consciousness to begin to look at issues more holistically. I start by describing my personal experience in food-related issues and how it has shaped my understanding and interest in food. The chapter critically examines misconceptions about African food systems by Western food scholars and highlights link between food and culture and the effects of colonization on food systems of the colonized countries and the consequences on environment.

I argue that one of the colonial legacies visible among Indigenous communities is the destruction of the cultures of the people. The erosion of Indigenous cultures through colonization was a deliberate attempt to delink Indigenous people[1] or racial bodies from their identity. Thus, the erosion of culture leached upon the Indigenous people globally has culminated in the loss of identity and self-esteem among some communities of Indigenous people. However, food cultures have not only been influenced by colonization but also capitalism. Since the introduction of commercial agriculture, new technologies were introduced to address what the Western capitalists considered the bottleneck of farming. Hence, technologies including artificial irrigation were introduced to reduce reliance on natural rainfall and allow farmers to produce food all year round. Secondly, modified species of crops and animals were introduced to shorten the maturity period of most crops and animals to allow farmers to produce food to meet immediate market demand. Thirdly, the introduction of storage facilities on and off-farm to prolong the shelf life of most farm products. The absence of these conditions hitherto made farming unattractive for business-oriented individuals and corporations. As some would describe agriculture as the most significant breakthrough in human history (Crosby, 2003), others considered agriculture as “the worst mistake in the history of human race” (Diamond, 1987, p. 95).

Nevertheless, the improvement in agricultural infrastructure made farming profitable and enabled Western capitalists to capitalize on food as a business empire and allow market forces (demand and supply) to dictate world food prices to the disadvantage of the poor. Also, it enabled Western countries, especially the United States and the United Kingdom, to dominate the world food market and also turn the developing countries into dumping grounds for their subsidized, excess and lower-quality foods. Susan George argues "this is what food has become: A source of profit; a tool of economic and political control; a means of ensuring effective dominance over the world at large and especially over the 'wretched of the earth'" (cited in Raschke & Cheema, 2007, p. 663).

However, in traditional communities, food is not only about nutrition but intertwined with culture because the culture of a specific group of people defines their food system and food system of a group of people constitutes their culture. Hence, reclaiming past Indigenous food cultures, therefore, constitutes a significant act of decolonization. As argued by Fanon, colonialism attacks the present, the past and the future; hence, we cannot fully decolonize without reclaiming the past. He wrote:

> …colonialism is not content merely to impose its laws on the colonized country's present and future. Colonialism is not satisfied with snaring the people in its net or of draining the colonized brain of any form or substance. With a kind of perverted logic, it turns its attention to the past of the colonized people and distorts it, disfigures it, and destroys it. (Fanon, 1963, p. 149)

Re-invigorating Indigenous food cultures, therefore, constitutes a way by which colonized people can re-assert their agency and reclaim their past glory due to the relevance of food in humans' life. Food is the basic need of all living organisms that must be satisfied to provide the impetus to meet other needs. Food gathering, preparation, preservation and consumption started long ago since humans realized feeding themselves from the wild was unsustainable as people begin to live in clusters. Historical accounts have shown that long experimentation with what was in humans' immediate surroundings, as well as intuition and revelations from God, gods and ancestors, determined what could be regarded as food (Logan, 2012). Food has, therefore, been ingrained in cultures of most Africans and other Indigenous communities across the globe.

Scholars have long argued that food is a crucial component of African culture (Blair, 1966; Dei, 1989, 1991) and consequently, connected to

local spirituality. Blair established the link between food and the culture of African people: "food habits are a basic part of every African culture. They have developed over a long period in response to the number of primary factors. The foods eaten are determined by environment, cultural contact and migration, barter, and trade" (Blair, 1966, p. 53). The process of acquiring food in Africa takes place in a manner that ensures the continued existence of peace, harmony and sanctity in nature. Sustainability of the environment constitutes a critical issue considered in food production and consumption practices. This is linked to the Africans' belief and spirituality that humans are connected to the earth; hence, their existence depends on respect accord to the earth. Such belief also admonishes local people to make peace with plants, animals (both domesticated and wild), stones and so on (Wangoola, 2000). The soil was assumed to be a deposit account from which the account holders (people) drew only part of the accrued interest without ever touching the principal (Wangoola, 2000). Hence, apart from nutritional value, food helps to shape individuals' lives, personal dispositions and spiritual connection. The next section, therefore, presents my self-reflection on food-related issues.

Self-Reflection

Growing up in Ghana, I was sent to live with my grandmother. As one of her favorite grandchildren, it became my responsibility to assist in food preparation in our home and I was introduced to a variety of African Indigenous Leafy Vegetables (AILVs) which were not sold on the local market. I also learned that sometimes, foods were prepared to meet the physiological needs of people. Hence, if someone fell ill, she or he was not supposed to eat certain foods, particularly those with higher fat content. Again, the food for expectant mothers or women who had just delivered a baby were differently made to meet their physiological needs such as the production of breast milk for the newborn baby and also for faster healing of wounds sustained during childbirth. There were specific AILVs and spices such as grain of paradise (*Aframomum melegueta*), Negro pepper (*Xylopia aethiopica*) and calabash nutmeg (*Monodora myristica*) for these purposes.

Typical examples were the occasions when my aunties would come to our home to give birth instead of the hospital in the cities. My grandmother would prepare special food using a mixture of local leaves (e.g., "nuunum" by the Akan) for the new mother. Again, on occasions where my grandmother had complications in delivering a baby, she gives the woman in

labor some local herbs to eat and within a few minutes, the baby would be delivered without any further complications. My grandmother used these herbs to deliver several babies without any incident or complication.

I grew up with the understanding that food is eaten to satisfy hunger or heal people from sickness. But my experience in the Eurocentric boarding school structured by the British was different. There were strict rules and regulations regarding dinner time and eating manners, and students were prohibited from carrying food outside the dining hall. The food we were exposed to was the ones sanctioned by the board of directors of the school as a balanced diet and Indigenous African grains such peal millets, sorghum and AILVs were considered of less value and hence, were absent in our menu. The decisions as to what we ate were entirely in the hands of the school authorities with little to no input from students. Eating with the hands was considered archaic—hence, the need for authorities to orientate us by taking us through lessons to mimic the Western style of eating. How to hold and where to place a fork, knife and spoon on a dining table and how to sit at the dining among other things were the pre-occupation of our matron and kitchen staff who themselves had become "a commodity of western ideology" (Wane, 2008, p. 187). Those who were inclined to their Indigenous upbringing and had difficulties in catching up quickly with the Westernization were laughed at and labeled village folks. Our communal way of eating was broken and individualism encouraged. Each student had his/her unique cup, plate, spoon, fork, etc., for which they were not transferable.

At the end of my boarding school experience, my eating habits and food preferences completely changed. My desire for Western foods over traditional foods increased. To compliment my newfound diets, I began listening to country music, blues and foreign gospels. Local foods and music became outdated to me and I began questioning the traditional way of life. I had no desire to eat in a group as we used to do before going to secondary school. I started asking for my separate bowl of food, which was frowned on by my grandparents, aunties, uncles and siblings as it implied a sign of division, breaking the bond that existed in the family. Soon I gained my "freedom" when I entered university. Now I decide what to eat, where to eat and how to eat it. I later became so engraved to more refined Western foods. I only became aware of the dangers of my eating habit when I fell sick and I was advised by a physician to avoid taking certain foods that I considered healthy and modern. Then I began to appreciate what my grandmother used to prepare for us.

I vividly remember my grandmother used to prepare a meal consisting of leaves called "Zoogala gandi" (in the Hausa language) and mixed with "gari" (a food from cassava) and oil. After boiling the leaves, my grandmother would sieve the mixture to separate the leaves from the liquid. As children, we sipped the remaining liquid, an action that received no reprimands from my grandmother because she knew its medicinal value. According to her, she inherited it from her great-grandparents. About ten years later, after I had graduated from the university and was teaching in the city, I heard of a wonder plant called "moringa" which according to scientists cures several diseases. The leaves are dried, grinded and the powdered form sold to schools, corporate organizations, as well as individuals in Ghana to incorporate in their food. Our school purchased the seedlings of moringa to plant on our school compound. To my utmost surprise, the wonder plant is no other plant than "Zoogala gandi" that we were exposed to several years earlier. This encouraged me to value our food cultures bequeathed to us by our ancestors.

The connection between people and food was demonstrated in one of the courses I took—"Cultural Knowledges, Representation and Colonial Education"—offered at the Ontario Institute for Studies in Education of the University of Toronto in the fall of 2013. As part of a presentation, my group decided to do an exhibition to conceptualize our topic "Museumization and showing of cultures." A colleague brought species of pepper commonly found in Latin America, the Caribbean and most parts of Africa. At the end of our presentation, we asked the class to comment or ask questions regarding our presentation. Surprisingly, among the entire exhibits, the one that caught the attention of students who originated from the Caribbean and Africa was the pepper. Most of the "after the presentation" discussions centered on the pepper. Many students showed how the pepper had re-connected them to their ancestral home and brought back some memories which demonstrated the relevance of food to our culture, identity and spirituality. The next section critiques some views expressed by Western food scholars on African food system.

Critical Examination of Misconceptions About African Food Systems by Western Food Scholars

A Ghanaian Akan proverb states, "if somebody who does like you want to mimic your dancing style, she or he twists the wait in an awkward position to discredit your dancing moves." This proverb suggests that stories or facts can be twisted to suit a specific narrative. Consequently, one story can be told differently by different actors depending on who is saying it and the motivation behind the narrative. It, therefore, implies that we cannot vouch for the authenticity of every statement purported to have come from scholars/academicians as the absolute truth without subjecting those statements to scrutiny. The second adage, which is common among Ghanaians, is translated as "until the lions begin to tell their own stories, the tales of hunting will always glorify the hunters." Drawing from these proverbs, it follows that stories of racialized groups told by dominant are often couched in a way to portray a state of hopelessness or helplessness to warrant colonial intervention. Prah (1997) argues that minority groups need to resist the insulting notion that others know them better than they know themselves. Critical scholars have criticized the attempts by Western scholars to devalue the knowledge systems and worldview views of Indigenous/minority groups as "epistemic racism" (Escobar, 2004; Maldonado-Tores, 2004).

For instance, some Western food scholars argued Africa lacked suitable food crops for human sustenance. However, this chapter limits its critiques on views expressed by two Western food scholars. Diamond (1997) argues that Africa was not blessed with the most promising domesticable food plants and animals in global terms; as a result, few crops and animal species were exported from the continent. Crosby (2003) corroborated Diamond's (1997) assertion that Africa lacked suitable crops:

> [t]he importance of American foods in Africa is more obvious than in any other continent of the Old World, for in no other continent, except the Americas themselves, is so great a proportion of the population dependent on American foods. ***Very few of man's cultivated plants originated in Africa***…and so Africa has had to import its chief food plants from Asia and America…As for the influence of these crops before 1850, *we might hypothesize that the increased food production enabled the slave trade to go on as long as it did without pumping the black well of Africa dry.* (Crosby, 2003, pp. 185, 188)

Crosby quote raises several questions that need to be unpacked. However, it is important to note that McNeil who wrote a foreword for Crosby in the same book was the first to discover factual inaccuracies in Crosby's assertion. McNeil highlighted Crosby's silence on African contribution to the world food system partly because of inadequate information on African food system. McNeil notes:

> Though they came in chains part of their fauna and flora came with them including African rice, okra, yams, black-eyed peas, millets, sorghum, sesame and the pathogens that cause yellow fever and malaria. Coffee came from Africa though not in slave ships. (McNeil, 2003, as cited in Crosby, 2003, p. xiii)

This quote from McNeil highlights the fact that even in shackles, the enslaved Africans relied on their Indigenous food contrary to Crosby's (2003) accounts. Preserving their foods as enslaved Africans did in Americas demonstrates Indigenous people of Africa resisted the colonizing power while maintaining a significant source of sustenance under colonization. As enslaved Africans practiced their Indigenous food cultures (e.g., soul food) in captivity in the Americas, it re-established their spiritual link to continental Africa.

Crosby's argument that "Very few of man's cultivated plants originated in Africa" requires further interrogation. Does Crosby (2013) suggest Africans contributed little to European cuisine? Or Africa contributed meagerly to the world food systems? In both cases, the statement is debatable because how did Crosby account for many Indigenous foods consumed by Africans which are not sold on the world market? For instance, in traditional communities, what constitutes a food to a particular group of people can be object of worship for some, or taboo to others or pet to many (Demi, 2014).[2] The Western hegemony in the categorization of plants and animals as food in global terms was challenged by Sahlins (1976) who argues "the exploitation of American environment, the mode of relation to the landscape, depends upon the models of a meal that includes a central meat element with periphery support of carbohydrate and vegetables" (p. 176). Sahlins (1976) further argues that the humans would have witnessed an entirely different structure of agricultural production and articulation to the world market if for instance Western countries particularly "Americans" ate dogs and horses, both of which are edible in some parts of the world. Food production, therefore, is governed by the cultural construction of

consumption along with symbolic taboos and valuation (Dietler, 2007). Hence, focusing on food consumption offers a vital premise to understand the social and cultural relevance of food and its role in colonialism (Dietler, 2007).

Again, Crosby's argument by inference seeks to suggest that the new crops introduced into Africa stimulated rapid population growth to replace population loses during slavery; hence, slavery did not significantly affect the African population. Ironically, Walter Rodney in his book *How Europe Underdeveloped Africa* showed that population growth in Africa was stagnant between the period of 1600 and 1900, the period in which most of the foreign crops were introduced into Africa compared to growth rates in other continents (Rodney, 1982).

Rodney's (1982) argument was corroborated by recent studies by Carney & Rosomoff (2010) and Inikori (1994) who corroborated Rodney's argument by showing how slave trade drastically reduced the population of Africa and deprived some communities of exuberant farm laborers. Therefore, the slave trade partly necessitated the adoption of early maturing crops like maize compared to millet and sorghum or less labor-intensive crops like cassava compared to yam (Logan, 2012). It is also worth emphasizing that Indigenous African farmers select not only high yielding crops but also crops that can withstand environmental shocks (Logan, 2012). Hence, there is an in-built mechanism in African Indigenous farming systems to ensure farm diversification and mixed cropping[3] which contrasts the monocropping.[4] The mixed cropping guards against total crop failure during natural disasters such as drought, flood or bush fire because different crops respond differently to these disasters.

Contrary to the views expressed by Crosby (2003) and Diamond (1997), recent empirical studies have demonstrated with ample evidence that Africa has contributed immensely to world food systems. Kiambi, Atta-Krah, Schmelzer and Omion (2003) found that out of 150 plant-based foods used by humans, 115 (76.7%) originated from Africa. Additionally, the world's major regions of crop diversity include the Ethiopian highlands, the Sahelian transitional zone, the delta of Niger River and the humid forest zones of West and Central Africa (Kiambi et al., 2003). The term "endemism," which refers to the proportion of species not found anywhere else in the world, is also high in Africa (Kiambi et al., 2003). It is estimated that tropical Africa is endemic to 45% of crop species (Sayer, Harcourt, & Collins, 1992). Researchers working at Plant Resource of Tropical Africa (PROTA) have isolated 275 plant species as vegetables and 528 species

which are used as food, medicine or ornamental purposes (Grubben & Denton, 2004; PROTA, 2005). Their study reveals 75% of the vegetables are Indigenous to Africa, 16% are traditional and only 8% were considered exotic to Africa (PROTA, 2005). According to Smith and Eyzaguirre (2007), Indigenous food crops of Africa are those that have their natural habitat in sub-Saharan Africa and traditional food crops are those that were introduced over centuries ago, and due to their prolonged use, they have become part of subcontinent food culture.

It is evident from the above discussion that Africa has promising food crops. However, recent food security challenges in Africa can be traced to several factors, including policies of the World Trade Organization (WTO), which has turned Africa into a market for Western food products. Until recently, Africa was a net exporter of food (Bello, 2008). Some have also argued that the persistent food insecurity reported in some parts of Africa was the result of abandoning African Indigenous food crops (AIFCs) that were suited to the African climate (Culwick & Culwick, 1941; Raschke & Cheema, 2007; Sambo, 2014; Smith, 2013). Another phenomenon that contributed to the underutilization of AIFCs is the globalization of the world food systems by Western economies resulting in many governments-based research institutions paying little or no attention to African Indigenous crop species and their potential for local crop improvement (Adebooye, Ogbe, & Bamidele, 2003; Adebooye & Opabode, 2005).

Furthermore, most research institutions are funded by foreign donors who set the priorities for research based on what they consider relevant. In such cases, Indigenous crops that have little international appeal or do not promote global trade have less incentive to research. It is important to emphasize that most food crops dominating on the world food market presently have been modified through breeding or genetic manipulation for higher yield. McCann (2001) described how maize, for instance, was transformed through genetic and breeding to become the leading cereal on the world market: “modern genetic alchemy has transformed maize’s personality from an obligingly adaptive vegetable crop into a hegemonic leviathan that dominates regional diets and international grain markets” (2001, p. 250). This quote suggests that it is possible to transform African cereals such as sorghum, millet and rice to the level of maize and other cereals especially when sorghum and millet contain higher nutrients (e.g., protein and vitamins) than most of the leading cereals on the world market. However, Indigenous communities have a broader understanding of food beyond a means of nourishment. Food production, preparation and

consumption are linked to culture, identity and spirituality of the people. Hence, farmers may resist any attempt to genetically modify their food crops by either rejecting hybrid seeds or breed their own seeds to adapt to their soil condition as a way of keeping these knowledges sacred from colonization (Hellin, Bellon, & Hearne, 2014; Mark, 2017). Hence, maintaining the originality of Indigenous seeds or food crops is considered as an act of resistance among Indigenous people. The next section discusses the role of colonization on food systems and environmental sustainability.

Colonization, Indigenous Food Culture and Environmental Sustainability

Prior to the colonial era, production and consumption of foods were always done with key considerations governed by norms, values and taboos that evolved from customs, traditions and cultures among Indigenous communities. These traditional rules and regulations were instituted to ensure the sustainability of the environment, mother earth and all that live within her. The social structures of Indigenous people changed drastically with the onslaught of colonization. The food dynamics within the world particularly in Africa, Americas and other colonized places came to a drastic change with the arrival of the Europeans. European agriculture "manipulated the environment to meet the needs of the settlers for food, shelter and other resources" (M'bayo, 2003, p. 191). Mutwa (1999) argues that since imperial forces of Europe began expanding their empires through the colonization of sub-Saharan Africa, ancient Indigenous knowledge including a wealth of knowledge about food habits, local pharmacology and health and longevity has progressively been eroded. The attrition of traditional knowledge of food and health was also reported in North America and Australia (Bodirsky & Johnson, 2008; Rowley et al., 2000). Colonization, therefore, altered the fauna and flora of most colonized areas in the world. As M'bayo succinctly put it:

> Domesticated animals from Europe arrived, thrived, and multiplied into enormous herds. Their eating habits, trampling hooves, and droppings and the seeds of weeds they brought left a deep impact on the environments that became their new homes. In the end, colonialism changed and reshaped the world because most continents lost many natural plants and animals due to the human introduction of overpowering species. And in many instances,

> colonized regions were adversely affected by the introduction of animals, diseases, and plants from another environment, which dominated the existing Indigenous flora and fauna. (M'bayo, 2003, p. 191)

The alteration of the ecology brought economic gains to the colonizers and untold hardship to local indigenes. Ironically, Indigenous communities who maintain their responsible roles to nature suffer the most severe consequences of environmental colonialism (Beinart, 2000). McCann (2001) argues "maize and cassava together were the nutritional wedge of a human assault on the forest landscape, intended to convert the forest's biomass and energy into useable carbohydrate" (p. 258). The exploitation of forest resources initiated by the colonizers persists long after political independence in most developing countries because the structures that ensure outflow of resource from colonies to Europe remain intact. This is witnessed in most parts of Africa where forest reserves are being eroded annually and several wildlife species face imminent extinction as reported in some studies (Attuquayefio & Fobil, 2005; Wiafe, 2013). Slocum and Saldanha (2013) revealed the fallacies in the description of the landscape of most colonized countries to pave the way for resource appropriation. They argue, "Cultivation is strongly coded masculine labour; landscapes are called wild or virgin, awaiting the white man to penetrate, survey, and subdue them. A field, like a woman, becomes barren" (p. 6). The notion that soils in developing countries, for example Africa, were poor but their forest reserves were considered wild and therefore good enough for exploitation was described by Slocum and Saldanha (2013) as "productivism," and it was criticized for its sexist implications (Trauger, 2004) as well as its Whiteness (Anderson, 2003).

According to Bodirsky and Johnson (2008), contrary to the Western Christian gospel that God bestowed on humans dominium over the rest of creation and instructed them to subdue and rule over the earth, the Creator spirit of Indigenous people gave no such right to humans. To the Indigenous people, humans are the most vulnerable and weakest link in the vast chain of nature (Wangoola, 2000). The world was not for them to conquer but to live in peace, harmony and respect (Wangoola, 2000). According to many Indigenous stories, "the Creator instead instructs the plants and animals to have pity on their younger siblings, the humans, and to teach them how to live successfully with the rest of creation" (Bodirsky & Johnson, 2008, p. 2). To demonstrate the interconnection between humans, the

earth, the plants and the animals, an old Kenyan woman showed how they reciprocate the benevolence of the nature through some farming practices:

> Carry some seeds with you. If you get to the farm before me, scatter the seeds before you start your harvest. When you do that you are giving back to the land. Give thanks to the Creator for providing for us, then you can start your harvest. If you do not give back, next year I will have no food and you will be far away to feel the effects of failing to observe one of our basic principles of life. (Wane, 2002, p. 90)

The above quote rooted in the spirituality of Indigenous people demonstrates how Indigenous farmers humanize the earth and show gratitude. By throwing part of the previous harvest onto the ground implies feeding the ants, termite, insect, birds and all other animals, and those that enter the soil either germinate or turn into manure to feed the plants. This kind gesture ensures that the cycle of sustainability and reciprocity is intact. This type of knowledge is lacking in conventional agriculture where the desire to make profit overrides any other considerations. The Indigenous measures of managing critical resources are always downplayed in the scientific world and often characterized as unscientific, accidental or conservation was not the prior objective. As Orr (2004) argues, it is elusive to think that we can manage the earth using appropriate scientific technologies. According to Orr (2004), it is more beneficial to control human desires, our economy and political expediencies. The current environmental challenges facing the world defy the universalist approach—hence, the need to combine Western science and Indigenous knowledges to solve environmental problems. The need to incorporate Indigenous Knowledge into policies is, therefore, needed now more than ever.

Conclusions

This chapter explored a wide range of issues regarding food habits and culture. The chapter critically examined misconceptions about African food systems by Western food scholars and provided fact and figures to support the critiques. Contrary to popular views held by some Western food scholars that Africa lacked suitable food crops and animal species, the chapter demonstrated with ample findings from empirical studies that suggest Africa is the hub of over half of the world's food diversity. However, the marginalization of African Indigenous food crops due to the globalization of the world food systems has contributed to the underutilization

of most Indigenous crops of Africa. The marginalization and underutilization of AIFCs are partly responsible for rising food insecurity in Africa. To address this problem, it requires the re-invigoration of Indigenous food culture as form of resistance and connecting to local spirituality. Going back to Indigenous foods could help solve numerous environmental issues associated with industrial agriculture.

Notes

1. The phrase "Indigenous people" is used in this paper as an international category.
2. For example, cattle are food for most people but an object of worship among Hindus in Indian; dogs and cats are popular pets in Europe and the Americas but food for some tribes in Africa and some part of the world; and crocodiles (alligators) are delicacy for some tribes in Africa but they are totems for some tribes (e.g., my tribe)—hence a taboo to eat their meat or cross the water which was used to wash crocodile meat and thrown on the floor.
3. Growing of different types of crops on the same piece of land.
4. Growing a single crop on a piece of land which is the focus of Western agronomic practices.

References

Adebooye, O. C., Ogbe, F. M., & Bamidele, J. F. (2003). Ethnobotany of Indigenous leaf vegetables of Southwest Nigeria. *Delpinoa, 45,* 295–299.

Adebooye, O. C., & Opabode, J. T. (2005). Status of conservation of the Indigenous leafy vegetables and fruits of Africa. *Africa Journal of Biotechnology, 3,* 700–705.

Anderson, K. (2003). White natures: Sydney's royal agricultural show in post humanist perspective. *Transactions Institute of British Geographers NS, 28*(4), 422–441.

Attuquayefio, D. K., & Fobil, J. N. (2005). An overview of biodiversity conservation in Ghana: Challenges and prospects. *West African Journal of Applied Ecology., 7*(1), 1–18.

Beinart, W. (2000). African history and environmental history. *Africa Affairs, 99,* 269–302.

Bello, W. (2008). How to manufacture a global food crisis. *Development, 51*(4), 450–455.

Blair, T. L. V. (1966). Continuity and change in African food habits. *Journal of the Institute of Food Technologies, 20*(6), 53–58.

Bodirsky, M., & Johnson, J. (2008). Decolonizing diet: Healing by reclaiming traditional Indigenous foodways. *The Journal of Canadian Food Cultures,*

1(1), 1–10. Retrieved May 12, 2013, From http://wwwerudit.Org/Revue/Cuisine/2008/V1019373ar,Html.

Carney, J., & Rosomoff, R. N. (2010). *In the shadow of slavery: Africa's botanical legacy in the Atlantic world*. Berkeley: University of California Press.

Crosby, A. W. (2003). *The Columbian exchange: Biological and cultural consequences of 1492* (30th Anniversary Edition). Westport, CT: Praeger Publishers.

Culwick, A., & Culwick, G. (1941). Nutrition and native agriculture in East Africa. *East African Medical Journal, 6,* 146–153.

Dei, G. J. S. (1989). Hunting and gathering in Ghanaian rain forest community. *Ecology of Food and Nutrition, 22,* 225–245.

Dei, G. J. S. (1991). Dietary habits of a Ghanaian farming community. *Ecology of Food and Nutrition, 25*(1), 29–49.

Dei, G. J. S. (2002). *Rethinking the role of Indigenous knowledges in the academy* (NALL Working Paper #58).

Demi, S. M. (2014). *African Indigenous food crops: Their roles in combating chronic diseases in Ghana* (Master's thesis). University of Toronto, Department of Social Justice Education and School of the Environment, Toronto, ON, Canada. Retrieved from https://tspace.library.utoronto.ca/bitstream/1807/68528/1/Demi_Suleyman_M_201411_MA_thesis.pdf.

Diamond, J. (1987). *The worst mistake in the history of the human race*. Discovering Magazine. Retrieved from http://www.sigervanbrabant.be/docs/Diamond.PDF.

Diamond, J. (1997). *Guns, germs and steel: A short history of everybody for the last 13,000 years*. London, UK: Vintage.

Dietler, M. (2007). Culinary encounters: Food, identity, and colonialism. In C. T. Katheryn (Ed.), *The archaeology of food and identity* (Center for Archaeology Investigations, Occasional Paper No. 34). Southern Illinois University.

Escobar, A. (2004). Beyond the third world: Imperial globality, global coloniality and anti-globalization social movement. *Third World Quarterly, 25*(1), 207–232.

Fanon, F. (1963). *The wretched of the earth*. New York, NY: Grove Press.

Grubben, G. J. H., & Denton, O. A. (Eds.). (2004). *Plant resources of tropical Africa 2: Vegetables*. Wageningen, The Netherlands: PROTA Foundation.

Hellin, J., Bellon, M, R., & Hearne, S. J. (2014). Maize landraces and adaptation to climate change in Mexico. *Journal of Crop Improvement, 28*(4), 484–501. https://doi.org/10.1080/15427528.2014.921800.

Inikori, J. E. (1994). Ideology versus the tyranny of paradigm: Historians and the impact of the Atlantic slave trade on African societies. *African Economic History, 22,* 37–58.

Kiambi, D., Atta-Krah, K., Schmelzer, G. H., & Omion, E. A. (2003). Plant genetic resources in the global and Africa settings. In *Plant resources of tropical Africa. Proceeding of the first PROTA International Workshop* (pp. 33–52), 23–25 September 2002. Nairobi, Kenya: PROTA Foundation.

Logan, A. L. (2012). *A history of food without history: Food, trade, and environment in West-Central Ghana in the Second Millennium AD* (Ph.D. thesis). University of Michigan, United States. Retrieved from https://deepblue.lib.umich.edu/handle/2027.42/96047.

Maldonado-Tores, N. (2004). The topology of being and the geopolitics of knowledge; modernity, empire coloniality. *City, 8*(1), 229–234.

Mark, G. S. (2017). *What ancient corn framers can teach us about engineering crops for climate change?* Retrieved from https://massivesci.com/articles/ancient-corntortillas-farming-genetic-engineering.

M'bayo, T. E. (2003). *Environment, colonialism: An international social, cultural, and political encyclopedia* (pp. 190–191). Santa Barbara, CA: ABC-CLIO.

McCann, J. (2001). Maize and grace: History, corn, and Africa's new landscapes, 1500–19991. *Comparative Studies in Society and History, 43*(2), 246–272.

Mutwa, V. (1999). *Indaba, my children*. Johannesburg, South Africa: Grove Publisher.

Orr, D. (2004). Introduction: What is education for? In *Earth and mind* (Tenth Anniversary Edition). Washington: Island Press.

Prah, K. (1997). Accusing the victims—Review of in my father's house by Kwame Anthony Appiah. *Codesria Bulletin, I,* 14–22.

PROTA. (2005). Comparative data on 275 vegetables. In C. H. Bosch, D. J. Boras, & J. S. Siemonsma (Eds.), *Vegetables of tropical Africa: Conclusions and recommendations based on PROTA 2: "vegetables"*. Wageningen, The Netherlands: PROTA Foundation.

Raschke, V., & Cheema, B. (2007). Colonisation, the new world order, and the eradication of traditional food habits in East Africa: Historical perspective on the nutrition transition. *Public Health Nutrition, 11*(7), 662–674.

Rodney, W. (1982). *How Europe underdeveloped Africa*. Washington, DC: Howard University.

Rowley, K. G., Gault, A., Mcdermott, R., Knight, S., Mcleay, T., & O'Dea, K. (2000). Reduced prevalence of impaired glucose tolerance and no change in prevalence of diabetes despite increasing GMI among Aboriginal people from a group of remote homeland communities. *Diabetes Care, 23,* 898–905.

Sahlins, M. (1976). *Culture and practical reason*. Chicago: University of Chicago Press.

Sambo, B. E. (2014). Endangered, neglected, Indigenous resilient crops: A potential against climate change impact for sustainable crop productivity and food security. *Journal of Agriculture and Veterinary Science, 7*(2), 34–41.

Sayer, J. A., Harcourt, C. S., & Collins, M. M. (1992). *The conservation atlas of tropical forests.* New York, NY: Sim & Scuster.

Smith, I. F. (2013). Sustained and integrated promotion of local, traditional food systems for nutrition security. In J. Franzo, D. Hunter, T. Borelli, & F. Mattei (Eds.), *Diversifying food and diets: Using agricultural biodiversity to improve nutrition and health* (pp. 122–139). Abingdon: Routledge/CTA/Biodiversity International.

Smith, I. F., & Eyzaguirre, P. (2007). African leafy vegetables: Their roles in the world health organization's global fruits and vegetables initiative. *African Journal of Food Agriculture Nutrition and Development, 7*(3), 1–17.

Slocum, R., & Saldanha, A. (2013). *Geographies of race and food: Fields, bodies, markets.* London; New York, NY: Routledge.

Thiophene, H. (1995). Post-colonial literature and counter-discourse. In B. Ashcroft, G. Griffiths, & H. Thiophene (Eds.), *The post-colonial studies reader* (pp. 95–98). New York: Routledge.

Trauger, A. (2004). Because they can do the work: Women farmers and sustainable agriculture. *Gender, Place and Culture, 11*(2), 289–307.

Wane, N. N. (2002). African women and spirituality: Connections between thought and education. In E. V. O'Sullivan, A. Morrell, & M. O'Connor (Eds.), *Expanding the boundaries of transformative learning: Essays on theory and praxis* (pp. 135–150). New York: Palgrave.

Wane, N. N. (2006). Is decolonization is possible? In G. J. S. Dei & A. Kempt, (Eds.), *Anti-colonialism and education: The politics of resistance* (pp. 1–24). Rotterdam: Sense Publishers.

Wane, N. N. (2008). Mapping the field of Indigenous knowledge in anti-colonial discourse: A transformative journey in education. *Race, Ethnicity and Education, 11*(2), 183–197.

Wangoola, P. (2000). Mpambo, the African multiversity: A philosophy to rekindle the African spirit. In G. J. S. Dei, B. Hall, & D. Golden-Rosenberg (Eds.), *Indigenous knowledges in global contexts: multiple readings of our world.* Toronto: University of Toronto Press.

Wiafe, E. D. (2013). Status of the critical endangered Roloway Monkey (Cercopethicus Diana Roloway) in dadieso forest reserve, Ghana. *African Primates, 8,* 9–16.