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TRANSATLANTIC SLAVING (DIET) AND IMPLICATIONS FOR HEALTH IN THE AFRICAN DIASPORA

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INTRODUCTION

The modern movement of plants and peoples in the Atlantic region created a synthesis where those crops and their dietary implications became part of the genetics and health challenges for the region's African Diaspora. International slaving created this Diaspora, and once the former morphed into sharecropping, wage laboring, and underemployment, the enduring socio-economic legacy of a metamorphosing slavery partially explains the prevalence of certain diets and diseases disproportionately affecting diasporic Africans. Indeed, diet plays a critical part in determining long-term metabolic health, and environmental factors interact with the genome throughout our life to determine gene expression and, consequently, disease risk. The cast members for which the African Diaspora is at greatest risk include hypertension, diabetes, cardiovascular disease, stroke, and obesity. The other part of the diet and disease story is that these ubiquitous illnesses are preventable, though bound to a diet and the changing demands of a capitalist world forged through the processes of transatlantic slaving. Within the transatlantic slaving processes of forced movement, alienation from homelands, and domestication—for both people and plants—laid the origins of the slaving diet, which grew out of the transatlantic system and which became deeply rooted in the foodways of both sides of the Atlantic. Under this system, the major conveyer for edible crops and commodified black bodies were British and Portuguese registered vessels. Between 1500 and 1900, the vast majority of enslaved Africans were drawn essentially from west and west central Africa (and later southeast Africa in the nineteenth century), and staple crops that are a hallmark in the diet of those regions and the American Diaspora remain corn, cassava, yams, rice, plantains, and bananas (Mbida et al. 158; Vansina 174-176).

Though the Portuguese introduced a number of these crops, indigenous African species existed, and most Africans from the above regions generally consumed fish, chicken, yams, fruits, vegetables, seeds and nuts, palm oil, millet, rice, legumes, eggs, sugar cane, honey, indigenous wines, and meats on festive days. The transformation of this Africa-based diet and the creation of African diasporic diets, including their health implications, are the focus of this essay. I will use one major slaving region —West Africa's Gold Coast (present-day Ghana)—to illustrate the gravity of this transformation and the issues it raises.

TRANSATLANTIC PERSPECTIVE ON DIET FROM AFRICA'S GOLD COAST

The archaeological record for the Gold Coast suggests that by at least 300 CE, settlers in dense tropical forest and on its northerly savanna and southerly coastal fringes had a diet inclusive of yams, oil palm, fruits and berries, seeds and nuts, cowpeas (black eyed-peas), guinea fowl, fish, giant snails, grass-cutters, and domesticated goats and sheep (Konadu 31-32). Twelve hundred years later, the Portuguese established several trading posts along the coast, the most important being their West African base at the São Jorge da Mina fortress (Elmina), and they were the primary slavers, followed by the Dutch, British, French, Brandenburger (German), and Danish. In 1572, an anonymous Portuguese observer marveled at the range of foods the Africans produced and consumed: oranges, lemons, citrons, nuts, peppers, coconuts, sugar cane, honey, plantains, eggplant, white and red pumpkins, sweet potato, yams, corn, beans, palm oil and palm wine, goats, sheep, and cows (Da Mota and Hair, 76, 80-81; Brasio 3: 83-113). The sixteenth century Gold Coast diets of yams, corn, cassava, plantains, sorghum, beans, and sweet potatoes would change little over the next three centuries. Portuguese, Dutch, Danish, French, British, and Brandenburger merchants, clergymen, and naturalists all noticed the widespread cultivation and consumption of corn, plantain, sweet potatoes, yams, sorghum, and rice (Isert 123; Alpern 14-16; Koelle 109-113; Jones 320-322; Riis 139, 152, 160, 204, 247; Hair 231, 248; Christaller 17, 22, 33, 40, 54, 269, 358, 502-503, 549). Corn made cornmeal or *garri*, flour, bread, and a non-alcoholic beverage called *pito*. Plantain was either boiled in pepper-pots or roasted or 'prepared into a past[e] like dumplins.' Sweet potatoes and yams, like plantains, were made into a bread, boiled or roasted; sorghum, though used as rice, were usually food for poultry and pigeons; maize ('Indian corn') were roasted or boiled and consumed by the enslaved and cattle and poultry; and rice was planted and consumed in western Africa and in the Americas by enslaved Africans in their provision grounds. These starches became the basis for popular cuisine found in West Africa and in the Americas, such as *kenkey* or *dokono*, a sourdough staple food made from ground corn; *ackee* (*akye*) and salted fish; okra stews; pepper-pot meals, green plantains used to make "afoofoo" (*fufu*). On the Gold

Coast, an eighteenth century Lutheran pastor noted, "The daily foods of the natives consists mainly of [*kenkey* and…] also vegetables, fruit and fish" (Jones 207). This account echoes a relatively balanced local diet, but one without much meat protein and calcium and one which a Danish physician saw as monotonous, for what "tastes good to them one day is good every day." Calcium and possible protein deficiencies and the removal of Africans from their soil and genetic protections will be thematic.

The slaving diet, in contrast, lacked key nutrients, and those absent nutriments inhibited converting carbohydrates to energy, the use of protein, and created deficiencies that led to numerous diseases. Since staple crops such as corn, cassava, and peanuts were cheap, with inadequate nutriments, and were ubiquitous in plantation and maroon societies, this meant that malnutrition was prevalent because of poor food combination and a varied diet rather than due to the quantity of foods consumed. The dietary problem was in fact too much maize, cassava, rice, sweet potatoes, peanuts, dried fish or meat and poor combinations thereof, on one hand, and too little essential nutrients, especially from greens and leguminous vegetables and non-plant sources of protein for those who had not reached early adulthood, on the other. Amerindians increased vitamin B3 and the protein content of maize by preparing it with lime or in alkali solutions or by combining it with leguminous vegetables (e.g., peas, beans, chickpeas, lentils). And Africans reduced the nutritional value of such staple crops by either poor knowledge of these starches and efficacious food combinations, or through equally poor preparation methods for processing starches and meats using "one-pot" or "pepper-pot" cooking approaches where vegetables, fish or meat, and starches cooked over an open fire for hours. The limitations of the foods offered on plantations or produced on provision grounds or in maroon communities, their processing and preparations in Africa and in the Diaspora, and their combinations and consumption created or exacerbated nutritional deficiencies which then led to malnutrition (e.g., kwashiorkor) and to fevers, dysentery, renal failure, pellagra, beriberi, cardiovascular disease, cancer cachexia, and mental illnesses. For those maroon communities with access to land and waterways and thus greater crop variety and wildlife and fish—providing essential proteins, minerals, vitamins, oils, and fats—they perhaps fared better than their more immobile plantation or mining-based counterparts with access to limited arable land.

From the eighteenth to mid-nineteenth centuries, transatlantic starches continued to dominate the diets of Africans on both sides of the Atlantic and the lives of those at sea. On board many slave vessels, captains instructed their chief mate to prepare a dry or boiled meal of mashed horse beans, rice, and corn for the captives, whose diet consisted largely of "products from their own land, such as maize, rice and yams." In 1721, ship surgeon John Atkins affirmed these observations, writing, "The common, cheapest, and most commodious Diet, is with Vegetables, Horse-Beans, Rice, Indian Corn" (Atkins 171). Another surgeon, Alexander Falconbridge, also wrote in his 1788 account, "The diet of the negroes, while on board, consists

chiefly of horse-beans, boiled to the consistence of a pulp; of boiled yams and rice, and sometimes of a small quantity of beef or pork" (Falconbridge 21). On the early nineteenth century Gold Coast, Danish minister H. C. Monrad (c. 1805-09) also noted the persistence of "maize, yams, pimento, etc" (Winsnes 174). The local peoples, moreover, consumed "brandy, or even just *pytho* [*pito*] and palm wine," with *pito* being an indigenous fermented beverage made of maize, millet, guinea corn or sorghum (Winsnes 175). Though sorghum was still in use in early nineteenth century Africa and the Carolinas, for instance, maize was the greater of staple crops in both regions (Feduccia 152). On maize, Monrad observed the "unripe maize…is cooked like green peas,' but, more importantly, he continued, 'Great quantities of maize, especially, are sold to the ships in chests" (Winsnes 176). Apparently, both the ubiquitous maize and the sparser domesticated animals already enumerated provisioned the slave ships (Winsnes 177). The effects of transatlantic slaving were not lost to Dutch observers on the Gold Coast, who could not help but notice, "All the fine [eighteenth century] villages of which Bosman speaks had disappeared, which proves how very prejudicial the slave trade has been to the population" (Daendels 33, 40, 216). Among the extant villages were those that were "fairly well planted with maize, rice, bananas [plantains]," in addition to the ubiquitous yam, palm oil and wine, and corn on other parts of the Gold Coast (Daendels 43, 103, 182, 261). By the 1960s and 1970s, a corpus of oral histories indicate villages were named after the corn's fibers— "corn was the most progressive fruit…thus naming the place after the corn fibers"—and thus demonstrating how primary crops of the last four centuries had changed little: the cast members were corn, yams, rice, peanuts, cassava, millet, sorghum, and varied spices (Agyeman-Duah 1: 5, 2: 2-3). In the Americas, the parallel dietary universe consisted of yams, corn, cassava, rice, cowpeas or black-eyed peas, okra, watermelon, and peanuts. The transatlantic slaving diet has not only persisted, it has assumed permanence.

PATHWAYS: IMPLICATIONS FOR ADDRESSING DIASPORIC HEALTH CHALLENGES

The transatlantic slave system linked the lands and peoples bordering the Atlantic Ocean and structured the widespread adoption and use of certain foods —over others— that have become staple foods not only in the African Diaspora, but in tropical Africa as well. This should not be surprising, for the largest movement of captives and crops, including peoples and the accompanying parasites, occurred between these two world regions. To grasp the sheer gravity of health challenges in the African Diaspora, we cannot take a bounded view of the challenges involved as if they were rooted in some notion of American exceptionalism—that is, the belief that North America is qualitatively different from and superior to other countries. We need a transatlantic view, for similar and symbolic processes were occurring at

the same time in places as distinct and later homogenized as the captives and captors who, for better or worse, became part of the global network of foods, forced labor, and the presence and absence of freedom in the same societies. This view is necessary in order to clarify what and where the specific health challenges are and how we got here, which presupposes getting the story right about the *how* before we can effectively address *what* are the challenges or *where* to begin. No competent trial lawyer makes a case for a specific remedy or action based on an equally specific argument, buttressed by adequate reasoning and evidence, before getting the story or the indispensable facts of the case right. This would be suicide in the practice of law, and the same for the health practitioners, families, communities, and individuals concerned about the topic of this essay.

I chose to focus on diet as the most vital part of one's health because the foods we eat, how and when we eat, what foods we eat in combination, and from where our food supply comes make the difference between maintaining health and resisting disease on one hand, and poor health and a body riddled with illness on the other. Foods can communicate nutrients to our bodies but also to cure, and we should see food this way, as both nutriment and medicine, as the first conceptual strategy in our ability to get and remain healthy. Viewed this way, chronic disease is a food-related symptom, for whole and healthy foods are the most powerful medicines on the planet, and thus designing a lifestyle and diet to match means heart disease and diabetes are reversible. The major diseases affecting diasporic Africa are hypertension, diabetes, and cardiovascular diseases (e.g., stroke), but these ubiquitous diseases are not hereditary. Rather, they are preventable illnesses bound to a transatlantic "slaving" diet and the changing demands of a capitalist world where the mechanization of food, the urbanization of land, the near death of the farmer and agrarian life, and where 7 billion people are seeking to feed themselves from less arable land and through hybrid, genetically modified, and commercially viable food crops. But commercial viability for multinational producers means nutritional liability for many consumers, especially those who cannot afford the rising costs of food nor will ever see, much less pay, for groceries at a Whole Foods Market or Trader Joe's. And as access to sufficient and essential nutrition (food security) becomes more dire and as the income gap between the poor and the wealthy rapidly increases, the rich will not be able to insulate themselves from the problem of food security for they do not produce their own food. With a flattened earth of 7 billion people moving rapidly in unprecedented ways and widely through varied means of transport, a food contaminant or foods devoid of basic nutrition can become epidemic in less time but with greater and horizontally wider collateral impact. Transatlantic slaving and its kin, global capitalism, lie at the center of these temporal realities. As daunting as the environment in which the above health challenges reside, there are a number of specific strategies—some used by enslaved Africans themselves—to address the "slaving diet" and chronic diseases borne of it. This essay offers three important pathways to

advance diasporic diet and health, based on a transatlantic history of the past four centuries and based on recent approaches to disease, diet, and agricultural innovation.

Pathway One: Rethinking Disease Conceptualization

Our conception of and appropriate response to disease in the African Diaspora is the first pathway. Disease is not simply the absence of health; disease is much like a maggot: it does not cause the illness, but is an indication of illness. Disease tells us we are not, fully or partially, in a state of wellness, and since we are never in that state and devoid of illness, disease is ever-present and its presence is in fact necessary for the efficacy of our immune system. Since health is neither the presence nor absence of disease, disease and health have to remain in some equilibrium. Disease or illness becomes dangerous and even fatal when the vector for disease or a contagion disrupts that balance and overwhelms the body system(s). In this tug-of-war, the same immunities endowed by one's heritability, intergenerational diet, and ecological and disease environment can either provide certain protections in one context or become liabilities in another. For captive Africans brought to the Americas, high skin pigmentation and other biological features, including certain genetic immunities, protected them from humid heat and sunlight, but this protection was a liability in temperate, colder environments, especially in the winter and spring months in the U.S. South where the vast majority of enslaved Africans resided. In those environments where pigmentation filtered out much sunlight and thus vitamin D, calcium deficiency was further exacerbated by lactose-intolerant Africans, especially those from the forested areas of west and west central Africa, without a history of milk or dairy products in their diet because of the cattle-killing tsetse fly. Vitamin and mineral deficiencies, coupled with lack of time-tested exposure to tuberculosis, pneumonia, and other European diseases on one hand, and a diet high in calories but often lacking key vitamins, minerals, and protein, on the other hand, made many susceptible to disease and significantly increased mortality (Kiple and Kiple, *Another Dimension*; Kiple and Kiple, "Child Mortality" 284-309; Kiple, "Nutritional Link" 677-690). Moreover, the African's acquired resistance to malaria and yellow fever was critical in forested areas of west and west central Africa, but their innate or acquired resistance to pulmonary and other diseases was poor once transplanted to the Americas.

A diet of high caloric content made the African ill-equipped to absorb vital nutriments and consequently many, especially among children, became malnourished and susceptible to a number of diseases, including rickets (Hochberg 1-10; Kiple, *Caribbean Slave* 30-32; Hannam et al. 89, 90-91). Infants and children under 5 were especially affected by shortages of calcium, riboflavin, niacin, vitamins C and D, which all generated high incidences of tetany, kwashiorkor, SIDS, intestinal para-

sites, tuberculosis, pellagra, rickets, and pneumonia. Even if milk was provided as a source of calcium, those Africans who, in their homelands, had no need to develop the lactose enzyme, suffered greatly from gastrointestinal problems, and calcium absorption was further hindered by the consumption of pork fats and insoluble calcium and magnesium salts from greens (Kiple and Kiple, "Child Mortality" 286). A staple diet of cornmeal and fats, at least for the North American diaspora, was a "slave diet" riddled with calorie-protein malnutrition and a cause of eminent disease and death. The nineteenth century "slave narratives" in North America bears this out. Josiah Henson of Maryland recalled "The principal food…consisted of corn meal and salt herrings," Peter Randolph of Virginia tells us the weekly ration was "two pounds of bacon, and one peck and a half of corn meal," Francis Fredric of Virginia and Kentucky said it was "Indian corn," "salt herring," and "black-eyed peas," Thomas H. Jones of North Carolina said it was "one peck of corn a week," and Annie L. Burton of Alabama said the weekly ration included "molasses, meat, corn meal, and a kind of flour" (Henson 6; Randolph 18; Fredric 7; Jones 7; Burton 4). Nineteenth century archaeological evidence for major states in the U.S. South, for urban New York, and for coastal Suriname consistently report findings of childhood malnutrition and disease with evidence of anemia, infection, and high mortality not only among children, but also, in the case of New York City, among women and men between ages 15 and 25 (Blakey 403, 405, 407, 412). Taken together, the testimonies and bones of the enslaved are well supported by the biomedical and historical record.

However, could the disease and dietary outcomes for enslaved Africans have been any different whether or not they came to the Americas with specific genetic and dietary predispositions or if they, like British indentured servants, were emancipated and incorporated into the socio-political life of the new lands shortly after arrival or after their contracted servitude ended? Nutritional deficiencies were linked to laboring conditions and the climatic and disease environments where the lives of enslaved Africans unfolded. If Africans were not removed from their homelands to new hostile disease environments, they would have likely faced some caloric, protein, and mineral-vitamin deficiencies of one kind or another. These deficiencies, if Africans remained in their homelands, might have occurred anyway if imported crops like corn, cassava, plantain, and sweet potato followed their known trajectory and not only replaced or superseded key African staples (like sorghum, millet, some varieties of yam), but also transformed African appetites, cuisine, and dietary patterns. This would conceivably have been the case whether Europeans established plantation slavery in parts of Africa or not. The Gold Coast of West Africa is a representative example. Portuguese, Dutch, and Danish nationals all envisioned plantation slavery on the Gold Coast, and each effort failed because Africans were on their own soil and in their own culture, their heritability and varied diet provided appropriate disease immunities to some illnesses while plant medicines addressed others,

and they subrogated the production and exportation of cash crops through theft or destruction. Once relocated to the Americas, these possibilities could only be approximated through maroon societies and using plantation-based provision grounds as proxies for re-created homelands with a diasporic flavor. Two medical doctors of African ancestry in the 1970s visited a Suriname maroon community and observed, "Their well-balanced diet…comprises of readily available meat protein, starch, and a few leafy green plants," and their health challenges are high blood pressure, malaria (from forest living), and hearing problems—all minor in comparison to the chronic diseases faced by many diasporic Africans (Counter and Evans 159, 181, 184).

Pathway Two: Rethinking Diet and Disease

A well-developed grasp of historic disease resistance and susceptibility among diasporic Africans creates the second pathway constructed around diet, but mutually reinforcing the first pathway. Complex diseases prevalent in the African diaspora include hypertension, diabetes, obesity, cardiovascular disease, renal failure, coronary heart disease, and breast and prostate cancer (Solomons 313-330; Wick and Zanni 223-228). A number of these complex diseases are also becoming more common in urbanized and westernized parts of Africa. The African Diaspora in the Americas, especially those in westernized and urbanized settings, are affected disproportionally by hypertension, diabetes and obesity, but these are rarer in Africa, and obesity has only recently become a major issue there. As more Africans are seduced into westernized and urbanized lifestyles, such as in urban South Africa and Tanzania, the prevalence of obesity has increased, leading, of course, to diabetes, cardiovascular disease, and hypertension (Tishkoff and Williams 617-618). If the environmental common denominators in these health challenges are western lifestyles and western-styled urbanization, does this mean the African Diaspora—and urbanized and migrating Africans—require a different set of treatments and wellness strategies than offered to other peoples and that is currently available? A diaspora of displaced peoples with distinct dietary and lifestyle practices from both their places of origin and in their places of residence suggests an affirmative to that question. This is especially so since the lived experiences of such peoples have been largely conditioned by poverty, marginalization, racial stratification and violence, and a range of socio-political inequities. These conditional factors are such that even though the United States and Britain, for instance, have two different (and currently debated) health care systems, the gaping health disparities for the African Diaspora correlate with acute racism and cut across both societies and their health delivery systems (Nazroo et al. 811-830; Spigner 161-176; Okonkwo, "Consequences"). To be sure, places of increased industrialization and urbanization where we find diasporic Africans—or urbanized and migrating Africans—are also the locus of diets structured around an-

imal fats, refined and processed foods, low intake of fiber, fruits and vegetables, and a high intake of sodium.

African diasporas in the Americas and in Europe are riddled with poor health and access to health care, and this has prompted biomedical researchers to apply the theory of "nutrition transition" to these diasporas, including migrating Africans to the above regions, in order to address diet-related chronic diseases through the identification of healthy and culturally relevant dietary patterns (Okonkwo, "Consequences"; Delisle, "Findings" 224-228; Delisle, "Dietary Patterns"). From the perspective of nutrition transition, western Africa is in the early stages where undernutrition (insufficient nutritious food or the body's inability to absorb it) and nutrition-related deficiencies are characteristic; the Caribbean and Latin America in the middle stages and characterized by a co-existing undernutrition and obesity; and later stages correspond to the African Diaspora in the United States and Europe, where they suffer from caloric excess and diets high in fats and animal products. The latter folks also consume large quantities of processed and packaged foods, live in communities where fast food chains with cheap and unhealthy foods predominate, have reduced physical activity and intake of fiber, fruits, and vegetables, and are acutely associated with the above chronic diseases. The pace and pervasiveness of obesity, diabetes, hypertension, coronary heart disease, and certain cancers follow an east-to-west transatlantic gradient from Africa to the Americas and to Europe, where the rate and health consequences of those diseases increase as one moves along this transatlantic route (Luke et al. 47-71). This east-to-west gradient is true for sources of calories (from starches and fats to meat and starches to high fat and salt with little fruit and vegetables) and body mass index (with associated rates of increases in obesity, diabetes, and other chronic and degenerative diseases). In this scheme, the starches and fat and the early stages of nutrition transition belong to "Africa" and the last stage correspond to the later stages of nutrition transition and the United States and Britain. The Caribbean lies in the middle stages and a good example of its emphasis on meat and starches is Jamaica, whose national dishes are ackee and salted fish and rice and peas (Higman 2-24). Although tentative, there is some genetic association of obesity between Africans and their diasporic kin, suggesting once more that approaches to diet and health in the African Diaspora must consider genetics and heritability, their historic dislocation and ongoing migrations, and the structuration of their foodways during and after the phenomena of transatlantic slaving and colonialism—both, seemingly, without closure (Adeyemo et al. 1549-1554).

For Africa-based communities, effective strategies for addressing health challenges revolve around diversifying food supply and meals, for there is a great deal of monotony in a typical African diet, especially for subsistence farmers. This phenomenon is not a new one, considering the eighteenth century Danish physician Paul Isert made the same observation about the Gold Coast. Rethinking that typical diet also includes rethinking the labor-intensive process of African food preparation,

whether outdoors or in a room separate from the main living quarters, for there is monotony here, too, and excess where even a seemingly healthy meal loses its nutrition through over-cooking. The most consumed dishes from west to west central Africa are dominated by transatlantic starches: *fufu* is made from either or a combination of plantain, cassava, or yams; *banku* and *kenkey* (*dokono*) are made from fermented maize dough; *gari* or *garri* is made from grated cassava; *egusi* soup is made from grated pumpkin, melon, or sesame seeds; and "Joloff" rice. These are almost always served with a sauce, stew or soup; the stews usually are heavily spiced and consist of a combination of spinach (or another green, leafy vegetable), tomato, peppers and/or chili, onions, okra, ginger, or peanut butter, often overcooked in palm oil to the point where much of the nutritional value is lost. Notice very little salt and sugar are used as condiments, and this was true in the past and in the Gold Coast case. Nevertheless, the general profile of the African diet, where the main meal is lunch, is one qualified by a mixture of vegetables, legumes, and sometimes meat or fish, which are used to enhance the stew that accompanies the meal and form the major source of protein via cattle, sheep, chicken, and goat. The key for African producers and consumers of staple foods is a reduction in cooking time through a multiple-pot approach, and through investing in a more diverse diet with freshly consumed vegetables and fruits and with adequate protein, calcium, and B vitamins.

There was and still continues to be some monotony in diasporic African diets as well. Here, starches also dominate staple dishes, and the above profile for the typical African diet is also true for the historic and contemporary African Diaspora. In the Americas, the millet bread or "corn cakes" made in Africa became the cornbread and hoecakes, the *fufu* became what folks in South Carolina called "turn meal and flour" and perhaps what became the dumpling in the Caribbean, and a popular New Year's Day meal called "Hoppin' John" was made of black-eyed peas and rice. Such meals high in carbohydrates and low in protein were quintessential to a slaving (and low-calorie) diet where its consumers engaged in arduous physical labor for long periods. Malnutrition and the diseases created by it were widespread, in spite of some enslaved Africans cultivating their own garden plots or provision grounds, their own hunting and fishing (when and where possible), and subsisting on a chiefly vegetarian or starchitarian diet. Of course, there were variations in this slaving diet, and the east-to-west gradient offers some confirmation, for in the wider Caribbean region and in South and Central America, the enslaved and their emancipated kinfolks, unlike those in North America, had access to dates, bananas, guava, melons, passion fruit, figs, jackfruit, mangos, pineapples, cashews, oranges and other citrus. But across the Americas and in much of Africa, the staple foods for the past four centuries have been beans, (sweet) potatoes, bananas, corn, cassava, rice, yams, plantains, peppers and spices, and animal protein in the form of fish, chicken, and goat (Lovera 39-44). The "one pot" meal, from which the pepper-pot originated, also persists along with the ubiquitous maize, often transformed into cornmeal breads

and cakes, porridge, and used as an ingredient in dumpling, "pone" bread, grits (similar to *eba*, a Yorùbá food made from corn kernel or cassava grits), *cou-cou* (cooked cornmeal with okra), and steaming cornmeal dough in banana leaves (Houston 17). As in our Gold Coast case, corn, cassava, and rice moved from foreign and peripheral to permanent parts of the diasporic African diet and the diet of those Africans on the other side of the Atlantic. Even for migrating and migrant Africans, many still eat by way of indigenous food preferences, but through "technologies of mass production of West African foods—canned, powdered, and frozen—[that] are appropriate for these individuals" by way of "African brand-named products, specialty African grocery stores, and advertisements in U.S.-produced African newspapers" (Renee 623-624). As was true four centuries ago, Africans in the diaspora and the diaspora in Africa and other parts of the world move with their dietary patterns and preferences, and health challenges.

Pathway Three: Rethinking Food Combination and Production

The time-tested dieting plan of balancing the food groups is apt in this instance, and for the broader African world matters of food combination and preparation are central in this balancing act. A healthy diet provides the right balance of carbohydrates, fats, proteins, vitamins, minerals, and water to keep the body running well and to reduce the risk of chronic and fatal diseases. Furthermore, the dictum "you are what you eat" still rings true, but it is more effective to talk about and design health strategies around "you are what your body absorbs" (Gophna 45-46; Wul et al. 105-108). The issue and solution here is food combination, considering where and what times of the years certain foods are best planted, harvested, and eaten. Thus, a person can eat foods rich in iron, but still become or remain anemic. The reason is simple: it is not what s/he is eating or even how much is eaten; it is that s/he is not absorbing the iron and in all likelihood that person is missing key vitamins that aid absorption. If this continues through dietary habit or monotony and without an appropriate health intervention, food and its nutrients simply enter and exit the body without leaving a nutritional mark. Diet viewed this way also affirms the significance of vitamins procured from food sources and that the importance of vitamin or mineral supplements is thus often overstated and can be misleading. If an individual is taking iron supplements and s/he drinks alcoholic beverages or hard liquor, s/he will not get the full absorption of those vitamins or minerals. However, if s/he takes that supplement with a glass of orange juice, the orange juice facilitates full absorption because of the calcium therein. This issue of combination also plagues multivitamins for those with respective vitamin deficiencies: these multivitamins do not work well because not *all* the combinations work well together, and as a consequence they can have an adverse effect on one's kidney and liver, which has to work harder to metabolize the nutrients from vitamins produced in a factory rather than in nature. In

effect, and paradoxically, individuals may very well have to supplement their multivitamin supplements! Indeed, if we eat correctly—in proportion and in variety—we do not need multivitamin supplements.

Table 1. Selected Transatlantic Foods and Their Nutritional Content and Limitations

Staple foods	*Nutritional content*	*Deficiencies, Dangers, or Benefits*
Maize/ corn	Rich in several minerals and vitamins A, C, and E, fats carbohydrates, and folate	Poor source of protein. Too much maize leads to vitamin B3 deficiency, which causes pellagra, and this same over-dependence may cause kwashiorkor
Cassava	Rich source of vitamin C, manganese, and carbohydrates, and low in sodium, saturated fat, and cholesterol	Poor source of protein, fat, fiber, and B vitamins. Too much cassava and its soaking and drying destroy almost all the vitamin B1 content. Can lead to protein-calorie malnutrition
Yam	High carbohydrate content (from the starch)	Poor source of protein. Low saturated fat and cholesterol
Sweet potato	Excellent source of vitamin A, and good source of vitamin C, manganese, and potassium	Poor source of protein, relatively high sodium content. Low saturated fat and cholesterol
Plantain	Rich in potassium, magnesium and phosphate, a good source of vitamins A, B6, and C, fiber, and starch or carbohydrates	Poor source of protein, but low in fat, salt, cholesterol, and the green plantain is low in sugar. Its potassium helps prevent and control hypertension, high blood pressure, and may do the same for heart attack
Rice	High in carbohydrates; source of iron, several B vitamins, calcium, and folate	Contains eight amino acids (makes it a good source of protein)
Peanut	Rich in protein and fat	Lacks Omega-3 fats and a few essential amino acids
Okra	Rich in vitamins A, C, B6, B12, and source of magnesium	B vitamins are essential to make use of protein and carbohydrates
Soursop	Rich in vitamins B3 and C	Used to help prevent or thwart effects of pellagra

The selected transatlantic staple foods in Table 1 remain as widespread, if not more, than they did a few centuries ago. These crops, however, need not be viewed as fixed and flawed nutriments, but rather as a basis for rethinking our approaches to food combination, preparation, and production. Our bodies need the carbohydrates, vitamins, minerals, and fats those foods provide, but we also need, especially for post-natal development, animal and plant sources of protein, oils, essential amino acids, and a number of vitamins and minerals not found in starches and grains. Arguably, diasporic Africans and those on the continent are well-positioned to address matters of food combination and preparation, yet the more contentious problem of food production—when most of us are not farmers or live in agrarian societies—is perhaps the greatest challenge. It is a challenge of contesting foods of dubious nutritional quality and the corporations who have patented their genetic makeup and have monopolized the scant arable land on which they grow. To this, we can add the monocropping (growing a single crop each year on the same land) of hybrid maize for national and international markets, and how the great emphasis on and homogeneity of a maize-based diet is replacing a diverse food supply and diet with

increased monotony in food production and consumption (McCann 260; McCann, *Maize and Grace*). This way, reduced food diversity and increased monocropping and monotony weakens the resilience of our food supply and of our bodies, making the crops, the land, and us more vulnerable to plant and human disease outbreaks, drought, climate change, and unprecedented human mobility. The story of maize will be the story of salmon, where many salmon species are either extinct or endangered due to overfishing, habitat destruction, and dam construction. Hatcheries were then created as controlled environments where salmon eggs would be artificially fertilized and incubated and where immature salmon were raised. However, these hatcheries, instead of saving the salmon, contributed to its rapid demise by eliminating genetic diversity and natural survival skills honed in nature. Once released, these hatched salmon were unprepared for nature and, because of their demise, the wildlife and microorganism that fed on them and the forests they fertilized met a similar fate. Many such hatcheries became recipes for disaster, killing not only the fish, but also the land, animals, and people who depend on them. Current modes of food production are hatcheries themselves, eliminating much of the biodiversity and local initiative nature intended and which we need.

CONCLUSION: THE CHALLENGE BEFORE US

In closing, we need to ask, "How will the African Diaspora skillfully contest the hegemony of food corporations or revolt against these food regimes?" Part of the answer lies in the transatlantic history foregrounding the contemporary health challenges in need of remedy, but not in the history of capital and captivity. Rather, the strategies lie in what we now call the African Diaspora, more precisely taking a cue from the tools they used to confront the hegemonies of their times. One tool is the idea of "maroonage," that is, using the skill sets and resources at one's disposal to strengthen or create geographic, virtual and institutional networks of people,built around the themes of food security, combination, preparation, and production. My use of the maroonage concept is in no way a naïve valorization of it or the histories of Maroon societies in the Americas. Indeed, contemporary Maroon communities, such as those in Jamaica, have transitioned from mixed and subsistence farming of the eighteenth century to "modernized," commercial farming controlled by market forces that have left them increasingly vulnerable and dependent on food aid from donor organizations and a diet of primarily processed foods (Baldwin-Jones 347-362). My point, instead, is one of approach: a maroonage idea of self-determination applied to an Africa with the most certified organic farms of any continent and to a "sub-Saharan" Africa-Latin America-Caribbean bloc that has not only the largest tracts of uncultivated land in the world, but also has some of the largest number of impoverished and malnourished peoples.

The next tool involves efforts that strengthen or create organic garden plots or provision grounds on scales proportional to the resources, land, and people involved for the central purpose of supplementary or subsistence production. Individuals and communities in the African Diaspora have created "urban gardens," used the kitchens and windows of their apartments, transformed the front or backyard of their homes, and, for those with access to arable land, employed cropping systems of intercropping, rotation, and soil fertility management to grow supplemental or staple foods. Now, one does not need the condition of legal enslavement in order to engage in either of the above endeavors. In fact, emancipated Africans in the South Carolina Sea Islands pursued a self-determined path of subsistence agriculture and independent land-owning at odds with U.S. federal regulations and obstructionism in the 1860s, and in the 1990s Cuba pursued a path of ecologically sustainable agriculture and production for a domestic market (Ochiai, *Harvesting Freedom*; Funes et al., *Sustainable Agriculture*). Against the tyranny of sanctions and the loss of key trading partners, Cuba took a Maroon position and prioritized domestic food production and diversified the crops cultivated using organic and semi-organic techniques, which, ironically, came from indigenous farming know-how and descendants of the formerly enslaved who remembered how to farm this way, since the "modern" Cubans had forgotten. Even though many Cubans referred initially to such organic produce as "slave food," Cuba's economic crisis and widespread hunger in the 1990s convinced them otherwise. Soon, farmers became folk heroes, valorized for their agrarian virtues. Praises aside, such articulations of "slave food" speaks to the sheer violence of transatlantic slaving and its slaving diet, but, as history and irony would have it, it is that kind organic food effort and connection to land that will equip those concerned to address the diasporic health and diet challenges before us.

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