Basket Cases and Breadbaskets: Sacred Rice and Agricultural Development in Postcolonial Africa

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Abstract
Based on ethnographic research among rural Diola in Guinea-Bissau, I provide a broad view of the history and interpenetration of rice in social, political, religious, and ecological domains, while chronicling the current difficulties of residents in this region who are no longer able to grown enough of it. These farmers’ experiences are unfolding at a time of revitalized attention to agricultural development in Africa, particularly under the auspices of the New Green Revolution for Africa. I examine the premises that constitute the resuscitated effort to address the plight of African farmers. I argue that the totalizing quality of rice in Diola and other rice-cultivating societies requires a development approach that takes into account dimensions of agrarian life not encapsulated by the high-modernist and anti-political orientation of the New Green Revolution for Africa.

Key words
Rural development; Green Revolution; Diola; Guinea-Bissau; agrarian societies; climate change.
Introduction

In 2009 a Portuguese NGO working on basic healthcare in northwestern Guinea-Bissau decided to tackle one of the most urgent problems in the region: the rapidly decreasing supply of potable water. In order to drum up European support for their plan to dig pump wells in rural Guinea-Bissau, they came up with an effective if gimmicky fundraising ploy that involved showcasing a Diola woman from one of the villages in this area at the Lisbon marathon. As the tagline went: Guinean women have to run a marathon every day in order to secure enough safe drinking water for their families.

The woman they chose was Nhamonk, a mother of six, grandmother of five, and generally recognized by her friends and neighbors as a hard worker and straight talker.\(^\text{1}\) Nhamonk had lived her entire life in the central Diola village of Esana. She was born there, she grew up there, she married a Diola man from within the village, she raised her children and worked within the daily rhythms of a rice-cultivating society, season after season, harvest after harvest.\(^\text{2}\) Notwithstanding her occasional visits to Bissau to seek medical treatment or to the Senegalese border to sell palm oil, she has stayed put in her village. So when representatives from the Portuguese NGO asked if she would come with them to Lisbon, she balked. But after talking it over with her husband – who had spent most of his life dreaming of such an opportunity for himself – she agreed to go. The NGO staff person based in Bissau arranged for a passport, bought her some warm clothing, and secured a pair of sneakers for the marathon. Once in Lisbon, Nhamonk was paraded around the stadium and interviewed for several days on various talk shows and morning news programs, her Crioulo words being interpreted into Portuguese by a Balanta Guinean employee of the NGO. By all accounts she was a huge hit. She straightforwardly explained the hardships of rural Guinean life, and she graciously responded to questions about polygamy and paganism. Much money was raised and the project for digging seven pump wells in the increasingly parched region is now underway.
When I went to her village for a visit in February 2010, this is how Nhamonk related her experience in Portugal to me:

I was so hungry, Joanna. I just couldn’t eat their food, I just couldn’t.

They kept asking me, ‘What do you want? What can we get you?’ And I told them, ‘Just rice. All I want is rice.’ Oh! They tried so hard. They took me to all their restaurants and offered me all kinds of food… They invited me to try, oh, I don’t know what any of it is called. All I wanted was rice. I was so hungry. Then they started to feel bad – I made them feel bad – because how could they eat when I wasn’t eating? No one had any will to eat because I wasn’t eating their food. I don’t understand – why didn’t they just have a bowl of rice? They even tried taking me to a Chinese restaurant, because they said maybe there I would be happy, but that didn’t work. All they had was a small amount of rice, and it didn’t taste right. I was so hungry I cried.

I had imagined that she would be struck by the cold weather, or by the concrete landscape, or by the hurried rhythms of urban life. But no. Nhamonk was solely focused on the rice. Everything else about this unimaginably rare opportunity faded into the background as her stomach ached for lack of sufficient rice.3

When she first told me this story I laughed – as she did – at the ridiculous aspects of her experience. Other listeners, especially her own family, also laughed, but followed up with understanding nods and agreed that Nhamonk had suffered. In some ways, her repeated recitation of this story could be seen as part of her ongoing strategic effort to convince her friends and neighbors that she did indeed suffer on their behalf – to get wells for the village – and that she was not the
recipient of special gifts and money, as everyone assumed she would be. Given social dynamics in this region, Nhamonk’s return to the village after her brief stint in Portugal was met with much whispering and gossip about what she had benefitted and how she was now “above them all.” This is dangerous talk in the social world of Esana, and Nhamonk spent an enormous amount of time and energy visiting people door-to-door to give a first-hand account of her trip, its community-oriented motives, and its empirical hardships. Even months later, when I arrived for a visit, she was still engaged in her counter-gossip campaign, and I spent several days walking around the village with her and hearing the same story over and over again. So, at first, I thought the focus on the lack of rice – and the ensuing hunger – were just part of the same rhetorical strategy. After the umpteenth telling, though, I began to recognize some resonances with other cultural encounters and transnational exchanges that also involve rice. And I began to understand why Nhamonk was focused on this aspect of her experience in Portugal, not necessarily instead of but in addition to her other reputation-rescuing efforts.

And here I will make a bold statement: rice is a – perhaps the – central feature that has textured land and livelihoods, persons and population flows, desires and dreams and disappointments, spiritual and moral life, and interactions and transactions across and beyond this region of West Africa. The area we now call the Upper Guinea Coast was, of course, known as the Grain or Rice Coast for several centuries, signaling European recognition of the importance, abundance, and defining aspect of rice in this region (or, more selfishly, highlighting their own interest in securing this rice in their trade along the coast). But both before and after European dominance in this area, rice has played a defining role in the interactions among residents with each other and with the various outsiders who have traded, raided, and invaded in their midst. Rice in this region has been linked to the rise of the great precolonial West African states of Ghana, Mali, and Songhai (Grist 1959, Osseo-Asare 2005). The rice-growing landscape – especially the mangrove swamps – that evokes the topographical imaginary
of this region has often served as a refuge from various external forces and foes – from centuries-old Islamic incursions (Linares 1981, Paulme 1967) to more recent iconoclasts (Sarró 2009), from Atlantic slavers (Hawthorne 2003) to more recent civil strife (Richards 2006).

A seemingly trivial and partially self-preserving account of a contemporary Guinean villager’s experience in urban Europe might reveal more than I first assumed about the ways in which people in this region see themselves in relation to others, even when these selves and others change over time. Because of course Nhamonk’s story is echoed by countless others in the quotidian experiences of rural and urban West Africans alike, and especially in moments of contact with non-rice-oriented people that have come and gone along the Upper Guinea Coast for the past several centuries.

To explore the varied meanings and implications evoked by Nhamonk’s complaint, I have divided this paper into two parts. Part One provides a broad view of the history and interpenetration of rice in social, political, religious, and ecological domains across the Upper Guinea Coast, while chronicling the current difficulties of residents in this region who are no longer able to grown enough of it. Their experiences are unfolding at a time of revitalized attention to agricultural development in Africa, particularly under the auspices of the New Green Revolution for Africa. Part Two, then, examines this resuscitated effort to address the plight of African farmers. By first setting the stage with a rich (although very partial) ethnographic portrayal of a rice-based society coming to terms with profound changes in its natural, social, and religious world, I hope to give readers a sense of the severe limitations of high-modernist and anti-political development approaches for addressing the complexities of agrarian change and rural poverty in postcolonial Africa.

**Part One: Sacred Rice**

A few months into my residency in a Diola village in northwestern Guinea-Bissau, I had become deeply immersed into a life in which rice dominates one’s actions, preoccupations, even dreams. I had
harvested ripe rice at the height of the dry season, carried heavy baskets laden with freshly cut rice from the paddies to the village, helped pound and winnow rice at my adopted family’s home, and cooked rice over wood fires in large pots of heavily salted water. I had eaten rice every day, at least three times a day, sometimes adorned with small fish or a sauce of boiled hibiscus leaves, but mostly plain rice – “kutangu” as it is called in Crioulo – morning, afternoon, and night. I had eaten such rice in my daily meals and also in ceremonial contexts, when it is prepared in enormous pots and distributed among participants who gather in small groups around a shared tin bowl. I had seen unhusked rice used to decorate funeral grounds, strung on cords connecting gigantic cottonwood trees and hung in bouquets around the central platform where the corpse had been seated. Small sachets of rice often encircled a young girl’s waist at a neighborhood dance, and delicately balanced bundles were worn as headdresses by the celebrants at inter-village wrestling matches. I had discussed rice with my neighbors and friends, or rather, listened as they spoke endlessly of rice, sometimes in technical terms (seed variations, irrigation methods, transplantation practices), sometimes in worried tones (“there’s not enough rice to go around anymore,” “our granaries are empty”) and sometimes in metaphorical tropes (“our money is rice,” “rice is our life”). Rice is omnipresent in Diola economic, social, and symbolic life. It is the center of social gossip, and people regularly discuss whose supply is abundant and whose is depleted. Rice is the medium of exchange during life-cycle redistributive processes, such as weddings, funerals, and initiations. And rice is the ticket to ritual power, as spirit shine ceremonies require abundant expenditures of one’s crop. Diola lives, like those of most rice-growing people in this region, are permeated by rice. Growing, eating, displaying, wearing, discussing, and revering rice. It was ubiquitous. I closed my eyes at night and panicles of rice swayed behind my eyelids.

Scholars of the Diola have consistently offered rich portrayals of this rice-oriented and rice-obsessed society; even when rice is not their intended subject, its presence still pervades their pages.⁴
As Linares sums up, “Rice is the symbol of ethnicity, of continuity, of all that is traditionally Diola… Rice keeps men tied to the land, village-bound, and wholeheartedly peasant” (Linares 1970: 223). I, myself, did not go to the Diola region of northwest Guinea-Bissau to study rice. And yet I still find myself, ten years after my first Diola rice harvest, returning again and again to rice, not only as a central organizing feature of Diola social life, but as the “thing” that mediates their encounters and exchanges with others, as well as their reflections and reassessments of themselves.

Diola see rice as part of a covenant with their supreme deity, Emitai, in which they work hard to cultivate the crop and Emitai sends rain to nourish it. I saw this covenant in action throughout my fieldwork in 2001-2003 and during my return visits over the past eight years through Diola farmers’ arduous efforts in the rice paddies, their commitment to well-organized work groups at crucial moments in the agricultural cycle, their regular libations – and occasional costly sacrifices – at spirit shrines to propitiate their gods and bargain for rain, and their careful child-rearing practices that socialize young people into an ethical life of hard work and no theft (see Davidson 2007, 2009). And I heard these sentiments regularly expressed in anthropomorphic and deistic references to rice. “The rice is pregnant,” my work associates would note as we walked through a paddy. “Rice,” my neighbors would tell me, “is sacred.”

This concept of sacred rice is the centerpiece of Senegalese filmmaker Ousmane Sembene’s portrayal of French colonial brutality in southern Senegal in his 1971 film Emitai. After conscripting young Diola men to fight in the French army in World War II, colonial officials demanded locally produced rice as a tax from the Casamance Diola villagers so adept at producing a surplus. In this otherwise caricatured portrayal of Diola religious life – elders sit amongst human skulls and sacrifice animal after animal in order to appease their gods, while their wives are held at gun-point under a scorching sun until they hand over their rice – Sembene did, I think, capture a central dilemma in Diola
– and probably other rice-cultivating people’s – social and spiritual life. In addition to rendering a quite accurate portrayal of the physical rhythms of rice cultivation, Sembene shows Diola struggling (and divided) over a thorny conundrum: How can they give away their rice, which is sacred to them? But how could their gods abandon them – the humans that propitiate them – for the sake of rice? This is encapsulated in perhaps the most problematic scene, when the dying “chief” argues with the gods about what is more valuable: Rice? The people? The gods themselves? 

These questions never get answered, and they might still be asked today although under very different circumstances. At that moment, Diola were pressured to give their surplus rice to the French colonial authorities, which they insisted was a violation of their principle of “sacred rice.” In contemporary Diola-land in Guinea-Bissau, the main problem is this: Diola can no longer grow enough rice – not only to meet their ceremonial needs, or to have surplus for a potential tax, but even to feed their families. Diola villagers are on the frontlines of global climate change; within the past thirty years declining rainfall, desertification, and widespread erosion in northern Guinea-Bissau have increasingly challenged Diola villagers’ ability to provision themselves through the wet rice cultivation practices that have long defined them as a people. These environmental factors have combined with neglectful and disadvantageous government policies and programs with regards to rural development, difficult marketing conditions, and diminished labor capacity due to out-migration of youth, all of which have worsened conditions in rural rice-growing regions of the country. By the time I arrived in Guinea-Bissau in 2001, most Diola villagers’ granaries were empty. Many people regularly told me “We used to be able to do this,” referring to the complex technical, social, and ritual system through which Diola produce, consume, and revere rice. “Now we cannot.”
Rice as a Total Social Phenomenon

Sacred rice is, above all, the idiom through which Diola talk about rice. Translated to anthropological terms, rice for Diola is a total social phenomenon in the classic Maussian sense. It mediates all social spheres and holds together the contradictions across them. It is the means through which people present themselves to themselves and others. In some senses, rice as a total social phenomenon could be reflective of one of the hallmarks of African agriculture more generally: the “intense dependence of a people on a single crop” even when that crop differs (Harlan 1976). That is, whether with yams, sorghum, millet, or rice, people cultivating these crops tend to be singularly and intensely focused on them.

African agriculture is characterized by a rather unusual number of dominant crops. In Arabic ‘aish means ‘life,’ and in the Sudanic savanna the word is applied to sorghum – the staff of life, the source of sustenance. Life without sorghum is unthinkable. To the north in the Sahel, ‘aish means ‘pearl millet.’ Life itself depends on pearl millet, and pearl millet alone, in that ecological zone. To the west around the Bend of the Niger, the word may be applied to rice by some Arabic speakers. Certainly in West Africa, from Senegambia to central Ivory Coast, a meal without rice is considered no meal at all. The same intense dependence of a people on a single crop is found in the yam zone. Existence itself depends on yams. In different parts of the continent other dominant crops are ensete, tef, and fonio… The current dependence of some people on maize and others on cassava indicates that dependence
on single crops does not take long to establish (Harlan 1976: 14; see McCann 2005 for more on maize in Africa).

Diola villagers regularly invoke a recent past during which their mode of production yielded an abundance of surplus paddy rice, often stored for decades and used in great quantities for ceremonial purposes. The decrease in rice stores has already had significant consequences for Diola ritual activities. Most shrine ceremonies require copious paddy rice expenditures—“sack rice,” what Diola call imported rice, even if it could be purchased in sufficient quantities, would not be acceptable in most ritual contexts. Beyond its impact on ritual life, diminishing crop yields has led to changes in what might be called the Diola social security system, particularly with regard to vulnerable segments of Diola society like widows. Given the already strained situation of monogamous households providing for their members, the levirate (botunabu) practice in which a widow and her children are customarily absorbed into her husband’s brother’s household has all but disappeared, leaving an increasing number of widows to fend for themselves on the margins of society. And, at the most basic level, decreased rice in Diola-land has contributed to increased anxiety around sustenance, and many Diola villagers lead a worrisome quotidian experience and a more intense working life in what was already a taxing labor regime.

Questions regarding Diola and their dominant crop are, in some ways, in the same scholarly vein as other studies of the rise of particular crops and how they shape desires and dramatically shift economic and political structures (Kurlansky 2002, McCann 2005, Mintz 1985). These writers focus on the role – and power – of a single crop to transform social, economic, and cultural conditions across vast and previously less-connected parts of the globe. In addition to sugar, salt, and maize, other scholars have provided rich portrayals of the power of rice, in particular, both across the globe and
within specific regions. The history of rice is often told with a focus on its abundance and adaptation across various ecological and political landscapes. Even within West Africa, scholars have focused on the importance and innovation of rice in enabling societies in this region to survive and often thrive (Carney 2001, Fields-Black 2008, Hawthorne 2003). Such accounts solidify the historic roots of rice in the Upper Guinea Coast and attest to the sophisticated technology that supported its growth as the region’s dominant crop. They are, for the most part, rice success stories. They cast the Upper Guinea Coast as a site of agricultural and social innovation, whether based on Hawthorne’s (2003) account of the resilience of a stateless society in the face of the Atlantic slave trade to develop the internal social institutions that enabled them to increase rice production, or Carney’s (2001) epic portrayal of the contribution of West Africans – especially women – to the Americas through their “rice knowledge system.”

It is now well-established that West Africans domesticated and cultivated rice for thousands of years, long before the arrival of the Europeans who were assumed to have brought both seeds and know-how of rice agriculture to West African coastal peoples. The last several decades has seen a flourishing of influential studies of rice in Africa, and in Atlantic studies more broadly, rectifying many of the biased assumptions in previous understandings – both scholarly and popular – regarding rice’s origins and importance being located exclusively in Asia. A considerable literature now attests to the important role of rice in shaping societies on both sides of the Atlantic. The weight of evidence – historical (Lauer 1969, Pélessier 1966), botanical (Harlan 1976; Portères 1970, 1976), climatological (Brooks 1985), geographical (Cormier-Salem 1999), archaeological (Linares 1971, 2002), linguistic (Fields-Black 2008), political ecological (Richards 1985, 1986), and genealogical (Carney 2001, 2004) restores rice history to its proper place in West Africa, even if the extension of such accounts across the Atlantic into New World systems continues to be debated (Eltis et al. 2007). That rice was grown
3,500 years ago in the Niger delta, that it diffused to two secondary centers, that both the plant and the people adapted to the particular conditions – saline, insalubrious, unpredictable – to thrive in a challenging landscape and develop a range of rice planting methods, that rice production even increased, in some cases, in spite of the ravages of the Atlantic slave trade (Hawthorne 2003) – all of this is now, unlike the semi-aquatic rice plant itself, on terra firma.

Carney’s (2001) watershed study consolidates such evidence to demonstrate Africans’ roles in developing both the domesticated rice plant, *Oryza glaberrima*, and the highly sophisticated water management systems, cultivation techniques, and trademark tools involved in successfully growing the crop in a tricky and unpredictable environment, long before European influence in the area. Building on Wood (1974) and Littlefield (1981), Carney breaks the narrative of African rice out of its relegated confinement to West Africa, of “local importance and antiquarian interest” (Sauer 1993), and provides as compelling a travel narrative for African rice as the more familiar accounts charted for the Asian cultigen. Just as for Asia, as African people and plants moved across the oceans to different ecosystems – whether of their own volition or not – they brought with them both the seeds and the skills that would transform the environments, economies, and societies wherever they went (and wherever they left behind).

Putting aside her more controversial extension of this argument, which focuses on the influence of this indigenous African “rice knowledge system” in the Americas via the Atlantic slave trade, I want to take up a point Carney and others writing in her wake emphasize regarding the development of rice agriculture in West Africa and ask about its implications today. Carney (2001), Hawthorne (2003), and Fields-Black (2003) each emphasize the innovative qualities of rice cultivation in the Upper Guinea Coast, as a technologically ingenious approach to a challenging mangrove ecosystem, particularly in terms of its sophisticated *crue/décrue* method of water management (Carney 2001: 40-
46, Fields-Black 2008), and its socially innovative responses to the pressures of the Atlantic slave trade (Hawthorne 2003). Whereas the aims of these authors were to establish a solid historical basis for rice-oriented cultures and their continual adaptation to myriad challenges – Mandinga expansion, European slave raiding, colonially-enforced cash cropping, shaky transitions to independence, and throughout all, a fluctuating set of environmental conditions and unpredictable pattern of rainfall – my experience as an ethnographer among Diola rice cultivators in postcolonial Guinea-Bissau leads me to ask: what now?

For the past ten years I have seen Diola respond to the decrease in rain and rice in varied, and mostly highly individualized, ways. The average household is able to produce only enough rice to last three months, and when you ask most Diola how they get by, they respond by saying “cuji-cuji, son,” referring to what chickens do to find insects and grubs on a day-to-day survival basis. They scrape together what they can in order to buy a kilo of imported Asian rice, which cannot be used for ceremonial purposes but has become acceptable to eat. Another common strategy among adult Diola – those with families to care for – is to work harder and to scold (and often punish) those shifting their primary allegiance away from rice cultivation and towards other livelihood strategies (see Davidson 2009). Some Diola have invested in spirit shrine ceremonies to contract for more rain. Others have sought new religious identities and institutions – Catholic and Protestant are the two options available in this area – that enable both access to new resources and a religiously sanctioned opt-out from “traditional” strictures that require exclusive devotion to rice. Increasingly, Diola families are investing in schooling for their children and pinning their hopes for the future on their children’s academic success. In Guinea-Bissau, school is a fragile thing to pin one’s hopes to, and there have been some unexpected hurdles in the process of sending adolescent girls to schools outside the village: most have come back as pregnant drop-outs. Boys often have their studies interrupted because of
political turmoil or lack of economic wherewithal, and as they wait around the capital they are not only unable to contribute their much-needed labor back home, but are far more likely to lead precarious lives, particularly in a nation where drug trafficking is ever-more entrenched and offers one of the only viable economic alternatives to an arduous (and food-insecure) rural life and a paralyzed (and unfulfilled) postsecondary school urban life.

In the opening anecdote, when Nhamonk complained of her hunger for rice in Portugal, she was, of course, strategically re-positioning herself within the interpersonal and communal web of rural Diola social life. Although her hunger was personal, and perhaps even performative, it still speaks to a more collective Diola dilemma: who are we without our rice? For now, Diola are hungry – some of them literally so, as they struggle to feed themselves and their families, others more metaphorically, as they search for new paths to social security through schooling, new religious institutions, and escape. Comprehending this hunger as it connects the physical body to the social body contributes to our understanding of the complex dynamics of agrarian life. But beyond a mere academic exercise, this has implications for development policies and practices for Diola and other agrarian populations in West Africa and beyond. The interpenetration of rice across all social domains requires that any development response – particularly in increasingly food-insecure regions – takes into account the totalizing quality of rice agriculture. And the concomitant challenge for scholars is to not only articulate such complexity, but to do so while pragmatically engaging both the anxieties of present-day rice farmers and an agricultural development discourse that disproportionately focuses on efficiency and quantity.

**Part Two: The Institutional History of Rice Science and Agricultural Development**

Considering the future of rice in West Africa must, of course, go hand in hand with an historical view of the decreasing self-sufficiency of what was once called the “Rice Coast,” which
leads to an examination of the shift from staple to cash crops during the colonial era in Africa, and a continued de-emphasis on agricultural development in the postcolonial period. Once defined by its abundant rice production, the Upper Guinea Coast has seen a dramatic increase in rice imports over the past half century. Colonial policies shifted African agricultural efforts away from food crops for local sustenance toward cash crops for European consumption. Newly independent African nations in the 1960s and 1970s declared their intention to attain self-sufficiency in food production, framing such a goal both as a pragmatic approach to meet the demands of population growth and address Africa’s marginal position in the international market, and as a political and symbolic reversal of the colonial project. But since independence, the increased influence of the cash economy combined with rapid demographic shifts and a concomitant focus on urban development have conspired to keep rural development efforts in a marginalized position vis-à-vis large scale improvement schemes, and food imports have only increased. Such trends in importing basic staples, especially rice, rapidly accelerated during the early 1970s given the twin impact of the Sahelian drought and the availability of cheaper rice on the international market, due to surplus yields in Asia as a result of new intensive approaches and high-yield seed varieties of the Green Revolution. Thus, in the independence era, “The amount of rice imported into West Africa increased from 276,000 tons/year in 1960-1964 to 496,000 tons/year in 1970-1974, an increase of 80%, at a time when total world rice exports were unchanged” (Aw 1978: 71). Despite its stated commitment to boost rice self-sufficiency (Da Silva 1978), Guinea-Bissau’s rice imports have steadily increased since independence (Temudo 2011).11

To answer post-independence Africa’s call for self-sufficiency in rice production, the West African Rice Development Associated (WARDA) was established in 1971, based in Monrovia, Liberia, and soon after joined the Consultative Group for International Agricultural Research (CGIAR). WARDA was one of several agricultural research and development centers dedicated to
improving the yields of African farmers, and the only one focused exclusively on rice. Since its establishment in 1971, WARDA has been a moveable feast, relocating from Liberia to Cote d’Ivoire to Benin in response to the eruption of violent conflicts across this swath of West Africa, and, in 2009, officially changing its name to Africa Rice Center (AfricaRice), although everyone still calls it WARDA. Tracing WARDA’s movements across West Africa, as well as its shifting position within the wider world of international agricultural development, would illuminate much about the politics of postcolonial development in West Africa, although such an exploration is beyond the scope of this paper.

Although conscious of the particularities of environmental, political, and cultural factors that condition rural development work in West Africa, WARDA largely follows the model of other agricultural research and development entities in terms of its focus on the technical aspects of growing rice. The characteristic approach of agricultural development since the Green Revolution, and even before, has been to apply the latest innovations in agricultural science – especially plant breeding, fertilizers, and irrigation – to impoverished rural communities across the world, and move agricultural production from sustenance to surplus to sale. Generally couched in the development discourse of poverty eradication and food security, the goals are primarily quantitative – higher yields, more crop per drop – and even though the latest iteration of the Green Revolution for Africa has incorporated the language of sustainability and gender into its rhetoric, the creation of high-yield seeds continues to be the Holy Grail for rural development.

WARDA’s chief contribution in this vein has been the development of New Rice for Africa (NERICA) varieties – the first successful hybrid between *Oryza sativa* and *Oryza glaberrima* – that are being distributed to rice cultivating populations across the continent. NERICA was first named “wide crossing” to highlight the achievement of bringing together two rice species from widely divergent
sources (Walsh 2001). It also reflects a shift in attitudes toward African indigenous rice, long considered inferior and marginal to rice breeding programs. As Walsh explains, looking back on several decades of rice breeding efforts, WARDA scientists realized that they had made limited gains because of the concentration on imported grains, so they began to “reclaim glaberrima” – analyzing the long-ignored indigenous rice species to see what could be learned from its long history and adaptation to West African conditions (Walsh 2001). A senior plant geneticist at WARDA described the process as “time consuming, but it’s worth doing because eventually we are going to get an interspecific hybrid that will combine important traits between glaberrima and sativa” (Walsh 2001: 65). And it did indeed pay off, at least in terms of scientific recognition, when WARDA won the prestigious King Baudouin International Agriculture Research Award for NERICA in 2000, and hopes began to soar regarding the possibility of revitalizing rice production across the continent.

In some senses, NERICA brings the epic journey of rice full circle. It is now generally accepted that Oryza sativa and Oryza glaberrima shared a common progenitor, and that the genus Oryza originated in the Gondwanaland supercontinent before being widely distributed across the tropics. This image of a common origin in a geologically conjoined world, followed by a long history of independent domestication and cultivation to the extent that attempted crosses between the two species – O. sativa and O. glaberrima – were sterile, and a subsequent “colonization” of African rice by the Asian variety in glaberrima’s homeland, we have finally come back to a different kind of conjoining, one conjured in the laboratory, where Asia and Africa are brought back together in the microcosm of a single grain, rhetorically touted as the “best of Africa mixed with the best of Asia” and having hopes pinned on it to feed a hungry world. “The NERICA rice varieties,” states the most recent comprehensive publication on rice, “offer great hope to the next generation in Africa” (Sharma 2010: 404).
It is precisely such hope that fuels a major set of international development initiatives directed squarely at rural Africa: the New Green Revolution for Africa. For the remainder of this paper, I will explore some of the premises, programs, and players that constitute this reincarnation of the Green Revolution. Drawing on the previous sections that developed a Maussian understanding of rice in Diola and other agrarian societies, I will outline some of my concerns about this new – and rapidly expanding – trend in development policy and practice for postcolonial Africa.

The recent revitalized focus on agriculture is framed as a corrective to the largely failed urban-based “rapid-modernization” approach that has dominated international donor policy and practice for many decades. Spearheaded by former UN Secretary General Kofi Anan and funded by philanthropy giants such as the Gates Foundation, the architects and planners of the new Green Revolution for Africa seek to fulfill Africa’s post-independence promise of self-sufficiency and turn around Africa’s image from a “basket case to a breadbasket” (Cartridge and Leraand 2006).

Gates program officers and AGRA officials speak enthusiastically about the potential of this new Green Revolution to succeed in Africa where so many other development efforts have failed. As one of AGRA’s plant geneticists recently summed up, “For a long time, I don’t think we knew how to solve Africa’s agricultural problems. But the answer is a second green revolution” (Rieff 2008: 30). African Green Revolution planners have attended to some of the more egregious errors of the last Green Revolution, and integrated some of the general changes in public consciousness and development practice since the 1960s and 1970s into its goals and methods. For instance, there is far more attention to “environmentally sustainable” practices, a stated objective to focus on women, and a stated intention to “learn from farmers.” Almost every document and speech on the Green Revolution in Africa is careful to point out the “specifically African” challenges in undertaking such efforts, often emphasizing Africa’s “diversity” and “complexity” of seeds, soil, and climate. Other “uniquely
African” challenges are often compiled in a laundry list of drought; global warming; shortage of water; lack of finance; local conflicts; political neglect; unfavorable trade conditions; fragile governments, economies, and infrastructure; technological stagnation; a weak private sector; the HIV/AIDS epidemic; a harsh and often inhospitable climate and environment; and low levels of foreign investment and aid. Even with such a long (albeit incomplete) list, and a repeated recognition that Africa’s challenges are “extraordinarily complex and profoundly different” to those that confronted Asia and Latin America, the core principles and models of the previous Green Revolution remain intact for the “genuinely African” Green Revolution: high-yield seeds, better and more fertilizer, access to markets.

I am concerned about this substantial investment in Green Revolution projects in Africa on a number of levels. On the surface, I am hopeful that renewed attention to rural Africans could be of benefit, especially given the increasing challenges I presented at the beginning of this paper and the longstanding neglect of African smallholders in national, international, and NGO development priorities. But I am worried that much of the new Green Revolution rhetoric echoes some of the more problematic (and ultimately dangerous) assumptions of past Green Revolutions and other attempts at agricultural change in Africa and elsewhere.

At the most basic level, African Green Revolution documents tend to treat rural development in Africa as a tabula rasa, and demonstrate very little concern with (or even knowledge of) the abundant analyses and attempted (and largely failed) interventions into staving African rural poverty in the past. There is negligible acknowledgement of the wealth of scholarship – concentrated in the 1980s – on how post-World War II Africa lost its capacity to feed itself, and more generally in understanding the roles of larger colonial and postcolonial international economic and political systems in causing current African agricultural problems. Quite the contrary, leaders of the new Green Revolution come across as
impatient with such “background information.” Jeffrey Sachs and Pedro Sanchez of the Earth Institute – called on by AGRA to develop some of the intellectual muscle for the African Green Revolution – continually press for urgent action over deliberate and methodical discussion. Sachs has asserted, “Africa needs its Green Revolution and it can’t wait. Africa can feed itself if farmers get the inputs they need – what theory are we waiting for?...We have the tools to get the job done” (Cartridge and Leraand 2006: 122). One delegate at the first annual African Green Revolution conference in Oslo said “We’ve talked for three days… now it’s time to act… Africans can’t eat potential.”

This general impatience is reminiscent of an earlier era of agricultural development work. Buttressed by the belief that rapid widespread action – not bogged down by generative criticism or participatory methodologies – was justified given the otherwise imminent starvation of a rapidly increasing population, previous agricultural development experts were dismissive of the particularity and complexity of farmers’ expressed needs and desires, often retorting that “beggars ought not to be choosers” (Richards 1985: 124). But rural Africa is littered with the failed schemes of such hurried approaches to agricultural development.14

*Teleological Development, Again*

Beyond their lack of homework and dismissal of critical perspectives, African Green Revolution adherents repeat a faulty teleological understanding of development. The premise behind Green Revolution programs is that a productive agricultural sector will lead to national economic growth. This is often bolstered with historical evidence from 18\(^{th}\) century England, 19\(^{th}\) century Japan, and 20\(^{th}\) century India (Bage 2008, Hazell and Diao 2005). Kofi Annan emphasized this point in his speech to the delegates at the 2007 African Green Revolution conference in Oslo: “Virtually no country in history has achieved economic progress and improved the lives of its people without first advancing
agriculture. That certainly applies to our continent” (Annan 2007). The proceedings from the first Oslo conference put it even more starkly: Africa is “Trapped” (in poverty), in “Trouble” (can’t feed its people), and Africa’s “Time has come. After decades of failed attempts at economic and social development, agriculture has been declared the engine of economic growth and poverty reduction in Africa… Africa has no time to waste” (Cartridge and Leraand 2006: 28; capital letters in original).

The argument, then, is that every successful society has had to pass through some kind of agricultural transformation, and that previous development efforts in Africa failed because they played leap-frog over agriculture and attended to industrial and urban development before their time. In the 2006 Oslo proceedings, a caption underneath a photograph of two African men driving a tractor through a large cultivated field reads: “Agriculture is commonly considered a locomotive for economic growth in Africa…” (Cartridge and Leraand 2006: 42). Africa remains, “a predominantly agricultural continent” and “neglecting this overarching importance of agriculture” accounts for Africa’s status as the worst-off continent on the planet (Cartridge and Leraand 2006: 41). So, the thinking goes, if you get agriculture right, the rest (end of hunger and poverty; modernization; economic growth; etc.) will follow. New Green Revolution advocates criticize previous development efforts that have tried to “impose a post-agricultural revolution strategy on Africa before its own agricultural revolution has happened… The lessons from Asia and elsewhere seem clear: Africa needs a concerted effort to accelerate smallholder-led agricultural development… only then can the transition to industrialization be expected to succeed” (Hazell and Diao 2005: 25).

This teleological approach reinforces an evolutionary development narrative in which each society must pass through the phases of supposedly more “advanced” ones on the road to progress. Not only is this historically inaccurate, but it misrepresents Africa as an entire continent “not ready, not yet, not quite” for other kinds of development efforts. Instead of recognizing a “full house” of
variation (Ferguson 1999), new Green Revolution leaders insist that “as African countries develop and
diversify, the other sectors will become important sources of tradables output and agriculture’s role as
the primary engine of growth will diminish. But other sectors are not yet ready to play that role on the
scale required” (Hazell and Diao 2005: 29). Africa must therefore stick to the linear progression of
social change: agriculture first, then industry. “As countries develop and labor becomes scarcer
relative to land and capital, [this leads to] a natural transition toward larger farms and an exodus of
small farm workers to towns and nonfarm jobs” (Hazell and Diao 2005: 29; emphasis added).

There is nothing “natural” about this transition. Such thinking not only repeats outmoded
clichés of the move from traditional to modern, rural to urban, subsistence to monetized economy, but
it ignores a recent trend in the so-called “advanced” or “post-agricultural” societies that challenges this
linear development model. Increasing evidence that “natural transitions” from small-scale farming to
large-scale industrial and commercial agri-business contribute significantly to environmental
degradation, food scares, and public health epidemics of obesity and other chronic diseases has made
Europeans and North Americans ever-more dissatisfied with large-scale food production. There is a
widening movement to return to “alternative” agriculture, seen in the growth of community supported
agriculture (CSAs), the Slow Food movement, locavores, the celebrity-like popularity of Michael
Pollan, and other similar trends. Perhaps this is an agricultural revolution in the other sense of the
word: coming full circle to an appreciation of local tastes and practices, environmentally-sensitive
farming, and other characteristics that have long been prominent among the rural African peasantry.

Means and Ends; Techniques and Contexts

Another problematic aspect of the “agriculture-led economic development” paradigm is that it
subsumes agriculture as a means to a more desirable end, denigrating the value of agriculture in and of
itself. A more productive agricultural sector supposedly paves the way to a post-agricultural world (as if such a thing could really exist). As a USAID official noted, “… If a process like an agriculture revolution works, it explicitly gets people to leave agriculture. It does! You are creating jobs that are more attractive…” (quoted in Cartridge and Leraand 2006: 103). To be sure, many farmers in Africa and around the world have hopes for their children that include non-farm jobs. But why preclude the possibility that agriculture itself can be desirable? Assuming that agriculture is something to be left behind on the road to progress – something you work your way out of – reinforces agriculture’s low status on the evolutionary ladder, and recapitulates the very image that led rural smallholder concerns to be regarded as “unsexy” in global development agendas for so long (a view that new Green Revolution advocates claim they are trying to reverse). From my own work among Diola rice cultivators, it is clear that although Diola farmers often complain about their declining capacity to sustain their households, they are proud of their continued hard work in the rice paddies; even those with supposedly more “desirable” jobs, such as teachers, identify first and foremost (and proudly) as farmers. By regarding food production as “unspectacular” Green Revolution proponents continue to “misunderstand the nature of both the agriculture and the politics of communities where food production is a major interest” (Richards 1985: 116).

Not only is agriculture devalued as a means to an end, but agriculture is reduced to set of techniques, something to be tinkered with and fixed. Although not sexy, agriculture is like sex in the Foucauldian sense; it is a “practice that can be practiced” (that is, improved). With the right inputs – science and technology; seeds and fertilizers – agriculture can be transformed. The overriding approach of the Green Revolution (past and present) is primarily biological and technological, and operates under the assumption that agricultural processes can be extracted from their political and social contexts. Such a view is encoded in Green Revolution discourse, institutions, and practices.
Most of its leaders – from both the donor and practitioner sides – are economists or agricultural experts (or both), and there are few if any social scientists (let alone anthropologists, let alone small-scale farmers) in their ranks. Indeed, this reflects a broader problem within international agricultural development institutions – what Michael Cernea calls the “uphill battle for social research” (Cernea 2005). As Cernea attests, “Within the vast total research portfolio of CGIAR, the size of social research is unexpectedly small and underfinanced. This is paradoxical, because the strategic relevance of social research to CGIAR’s overall research for food security and poverty reduction is necessarily high… In fact, this discrepancy has been growing for a while, getting deeper” (Cernea 2005: 73).15 Perhaps this helps explain why the current Green Revolution approach to agricultural transformation not only ignores the long history of social and political circumstances that help explain why African agriculture is experiencing such difficulties, it also occludes a picture of agriculture embedded in complex modes of social organization, moral economies, arrangements of power, and religious beliefs and practices. As we have seen for Diola – and as has been documented for other agrarian groups – agricultural work is not simply a means of sustenance, but is integrally tied to conceptions of personhood, social relations, ritual obligations, and collective cultural identity. Tinkering with any piece of their cultivation practices has significant ramifications for all of these realms.

The technocratic and anti-political thrust of New Green Revolution agricultural development efforts evident in their discourse and institutional practices is not just grounds for complaining about the limited inclusion of social scientific knowledge. The over-reliance on modeling and planning makes such approaches blind to the dynamics of “agriculture as performance,” a perspective famously coined by Richards (1989, 1993) and expanded by Crane, et. al (2011) in order to highlight farmers’ creative improvisational capacities in adapting to variability. The New Green Revolution’s framework leaves no room for the dynamic, spontaneous, performative agricultural processes of
African farmers, and as both Richards and Crane point out, such an occlusion ultimately misses an opportunity to develop synergy between modeling/planning approaches and performative ones. Both of these – and more – will be needed to address the challenges of food production in Africa.

Agriculture is necessarily a biological and social process, but the social side of this equation is set aside with the Green Revolution’s exclusive emphasis on research and technology. This bias is built into the elitist research culture of the Green Revolution. In the Asian and Latin American iteration, International Agricultural Research Centers (IARCs) concentrated the brightest talents in a single place, provided the best research facilities, and in so doing, removed them from exactly the geographical and sociological contexts where they would be most connected to the needs and realities of farmers, and in which they were meant to implement their scientific discoveries. Such practices are replicated in Gates’s support of Cornell and other seed research centers, and even showcased on AGRA’s website with images of African scientists surrounded by the accoutrements of modern, high-tech scientific legitimacy: white lab coats, safety goggles, and pristine laboratories lined with neatly labeled beakers. But such environments not only insulate Green Revolution practitioners from a real-time agricultural environment and on-farm knowledge, practice, experience (both biological and social), they obfuscate the social and political aspects of agrarian change (such as land reform, the social organization of labor, national price setting, to name just a few). This may have the unfortunate consequence of repeating the problems and failures of previous applications of “pure science” to agricultural challenges.

Beyond seed science, one of the innovations new Green Revolution leaders are most excited about is the development of a corps of “agro-dealers” to bring high-yield seeds and improved fertilizer – what used to be called the “biological package” – to isolated, rural farmers. Replacing the infamous “extension agent” as the traveling salesman of the Green Revolution, these agro-dealers would be
culled from the existing merchants who peddle their wares in outlying villages, thus solving (or at least circumventing) the problems presented by the lack of an African transportation infrastructure. But the assumption that the existing petty-merchant class can sell new seeds and other agricultural products (and even train farmers how to use them!) exposes a serious misunderstanding of social and ethnic relations in parts of rural Africa. In West Africa, the petty traders that would be recruited into the agro-dealer corps are generally regarded with deep misgivings and mistrust by farming populations, and are certainly not recognized for their knowledge of agriculture. I was often told a well-known “rural legend” about sneaky peddlers (they are always Fula in the Guinea-Bissau version of this story) who sold glass marbles to gullible rice cultivators and told them that, if they were planted and tended to, they would grow into coveted glass bottles after the rainy season. This anecdote is often told to either highlight the naiveté of “traditional” and “backward” farmers, or explain the roots of the long-held animosity between land-owning farmers and itinerant merchants, or to prove that such merchants are inherently untrustworthy… or usually some combination of these. Many similar stories abound, and they testify to the already tense relations between farmers and would-be agro-dealers. Such an investment – in funding and expectations – in agro-dealers as the conduits through which newly developed high-yields seeds, fertilizer, and agricultural know-how will reach rural farmers and transform agricultural productivity further exposes the naiveté – or at least the lack of attention to on-the-ground social relations – of Green Revolution architects.

Scientific and Indigenous Knowledge

One of the key resolutions to emerge from the first African Green Revolution conference in Oslo is “targeted research and transfer of Science and Technology to farmers” (Oslo Conference 2006, capital letters in original). Other resolutions, redressing previous Green Revolution gaps, include commitments to crop diversity and the role of women in agriculture. But the emphasis is unmistakably
on bringing science and technology to the “unknowing” African smallholder. Again, such an approach carries forward an attitude toward African farmers as occupying an earlier stage of evolutionary history, and claims that “the key to agricultural development in Africa lies in ‘technology transfer’ – the importation of ‘appropriate’ agricultural inputs from tropical regions held to be more ‘advanced’ on the evolutionary scale” (Richards 1985: 43).

Besides the prejudicial implications of such a view, the continued belief that laboratory science leads agricultural innovation can be countered by countless examples of agricultural researchers re-inventing traditional African agriculture by, for instance, “discovering” the value of West African farming techniques such as ‘bush burning’; integrated use of valley and upland holdings; intercropping; and land rotation fallowing. Often science has followed rather than led innovations of these kinds. As Paul Richards notes, ‘high technology’ initiatives – throughout the colonial and postcolonial era – had minimal and often counterproductive impact, and their failures were remedied – in many cases from Nigeria, Sierra Leone, Liberia, the Gambia, and Senegal – by reinstating local cultivation practices (Richards 1985. See also Richards, et. al 2009, Nuijten, et. al 2009, Offei, et. al 2010).

The reincarnation of the Green Revolution for Africa has attended to some of the previous biases against indigenous knowledge in its commitment to “listen to farmers.” As an AGRA program officer assures,

There is also a lot to be learned from the farmer. You develop ideas about what you think the farmer should do to solve their problem, but maybe that is not the farmer's problem… So, for us agriculturists, we may be telling the farmers what chemical to use or how to control the storage pests or how we can develop a resistant variety, but the farmers
know what they have been doing, and they may have abandoned a
method that works... So if you have an interaction between you and the
farmer, you will come to learn what the farmer really wants” (AGRA
website).

While these lessons learned from the hubris of the previous Green Revolution do reflect what I believe are sincere intentions to incorporate indigenous knowledge and smallholders’ concerns into agricultural development projects (even though, as mentioned above, other dynamics of Green Revolution culture and practice militate against this very process), such a bland and general intention to “learn from farmers” exposes yet another naïve assumption on the part of Green Revolution agro-economists: that indigenous knowledge is ripe for the picking, readily available to whichever plant geneticist or grant portfolio manager might ask. But one of the reasons that there has been a continued stereotype and misrepresentation of the “conservative risk-averse farmer” is that agrarian communities have “often misled outsiders into thinking that not much was going on” (Richards 1985: 111). It is often to their advantage to keep a low profile, and keep up the image of a subsistence backwater; such a projected image fends off the tax collector and others interested in taking a share of what is often a thriving trade in foodstuffs (see Richards 1985, 2007).

Even more so, some agrarian societies have deeply ingrained formal and informal communicative strategies that make access to agricultural knowledge – or really any relevant knowledge regarding farmers’ circumstances – extremely difficult. Various rice farming groups expend a great deal of time and energy managing knowledge about themselves and about the natural and supernatural world (Davidson 2010, Fermé 2001, Sarró 2009). Their commitment to a particular scheme of information flow—based largely on secrecy, evasion, and restraint—challenges even the
most culturally sensitive development policies and practices, and certainly makes “learning from farmers” more complicated than the AGRA program officer would lead us believe.

Conclusions

By outlining some of my concerns with the new Green Revolution for Africa, my goal is not to dismiss efforts to reach out to African farmers, or more broadly, address pressing problems of entrenched rural poverty in Africa. Rather, I want to point out some of the ways in which current – and well-funded and powerful – efforts to shape the agenda for doing just this might benefit from a closer analysis of their own assumptions, whether encased in the rhetorical, institutional, or programmatic aspects of African Green Revolution initiatives. Although the language is more sophisticated, these new Green Revolution approaches smuggle in much of the last Green Revolution’s teleological and evolutionary models of social change, and – despite regular references to “local knowledge” and “political will” – continue to treat agriculture as a set of techniques outside complex social, political, and religious contexts.

As Pedro Sanchez from the Earth Institute confirmed, “The African Green Revolution is not a proposal, it’s on, it’s happening now. Agriculture is back on donors’ and governments’ agendas and it is being acknowledged as one of the key factors in Africa’s future” (Cartridge and Leraand 2006: 109). Given that the train has already left the station, the question then becomes: how can those concerned about the more problematic aspects of Green Revolutionary practice engage it constructively – particularly with interlocutors resistant to criticism and eager to claim the moral high-ground of poverty eradication – without either being relegated to the role of naysayers, or mired in the “ineffective particularities of ethnographic detail” that continue to make anthropologists and other social scientists “bystanders in the wider arena of discussions about ‘Africa’” (Ferguson 2006: 3)?
Will social scientists once again be consigned to the task of documenting the validity of indigenous knowledge to an audience that is enamored with (and has the resources and power to bring about) change through technology, “pure science,” and market access? How can we best bring anthropological and historical knowledge to bear on what will be significant changes – and perhaps major opportunities or high stakes follies – for rural Africans?

The story of rice and rice-oriented societies in West Africa invites us to take a very long view of historical change. Rice was domesticated 3,500 years ago as an innovative response to a drying climate. Mangrove rice cultivation in particular represents an ingenious way to engineer an otherwise inhospitable landscape. Even the pressures of the Atlantic slave trade catalyzed – in some cases – the consolidation of otherwise dispersed populations and led to an increase in output of rice. As Ohnuki-Tierney notes for the Japanese, “rice paddies objectify time.” (1993: 133). They evoke seasonality in the rhythms of planting and harvesting, they speak to cyclical patterns of rain and drought, and they express the history and memories of ancestors in their lineage-based tenure and their well-maintained ridges. What they will look like and represent in the future is unclear, especially given the odds of climate change, geopolitical marginality, and a skewed globalized economy.

As stated above, one of the goals of the African Green Revolution is to turn Africa from a “basket case to a breadbasket” (Cartridge and Leraand 2006). Rather than being “genuinely African,” this aims to make Africa more like Iowa. An immediate countermeasure would involve shifting our attention away from old chestnuts like the impressive “adaptive” strategies of rural smallholders – and towards a better understanding of the conditions in which agricultural innovation thrives – by building on Paul Richards’s call to “stimulate vigorous ‘indigenous science’ and ‘indigenous technology’” (Richards 1985: 12. See also Richards 1996, 2009; Offei, et. al 2010). But a next step would involve moving beyond a conception of science narrowly conceived on the basis of the origin of the scientist.
A “genuinely African” Green Revolution is not about enabling Africans to occupy positions in pristine laboratories, but it could be about re-conceptualizing the character of science itself. The nature of the science that has undergirded Green Revolutions – from 18th century Europe to 1970s Latin America and Asia – is a classic example of Scott’s (1998) notion of high-modernist science, principally defined by a narrow focus on a single problem (agricultural production), and a tendency to overlook or externalize negative by-products. It is also a deeply anti-political approach to agricultural development (Ferguson 1994). The experiences of Diola rice farmers and the totalizing quality of rice in their societies remind us that African rural development requires a commitment to engage in agriculture not as a means to an end, but as integrally linked to – and informed by – culture, ecology, politics, social organization, and other dimensions of agrarian life not readily encapsulated by the tunnel-vision goals of a high-modernist and anti-political approach to development.

1 All names have been changed.

2 Diola do not keep precise track of their age, but I estimate Nhamonk to be approximately 47 years old.

3 See Ohnuki-Tierney for similar observations among Japanese tourists: “Japanese, especially older Japanese who travel abroad, often complain that they do not feel satisfied after eating meals without rice; manpukukan (the full-stomach feeling) is not achieved without rice, no matter what else is eaten” (Ohnuki-Tierney 1993: 41-42). Also, Nhamonk’s comment on Chinese rice “not tasting right” could be linked to evidence of West Africans’ highly differentiated and fine-grained assessments of various characteristics (including taste) of rice varieties, especially new hybrids (see Temudo 2011).


5 Rice, of course, is considered sacred in different ways by many rice-cultivating people (see Grist 1959; Ohnuki-Tierney 1993; UN 2004).

6 Robert Baum has also insightful explored aspects of the Diola notion of sacred rice. See especially Baum (2001).
The dynamics around shifting levirate practices and the status of widows are quite complex, and I do not have room in this paper to detail them. For now, what is important is to acknowledge that decreasing rice supplies play an important part in the changes in social organization concerning widows.

McCann’s (2005) study of maize provides further evidence of the observation that a hallmark feature of African agriculture is its loyalty to a single crop, even one of recent provenance.

I am inspired by, and hopefully building upon, such works. But my similar focus on a single crop – rice in this case – does not lead me to quite such dramatic and far-reaching arguments about the transformation of civilizations and geopolitical order across multiple continents. Although my background discussion of rice—its origins, travels, widespread use, and future expectations—does touch upon some of these themes, my aims are perhaps less ambitious and more intimate than these works.

Eltis et al. argue against Judith Carney’s “black rice” thesis (as well as Peter Wood and Daniel Littlefield’s work, on which Carney’s builds) by insisting that “there is no compelling evidence that African slaves transferred whole agricultural systems to the New World; nor were they the primary players in creating and maintaining rice regimes in the Americas…Furthermore, a close look at the slave trade from an Atlantic perspective suggests no evidence that the rice culture of South Carolina, Georgia and Amazonia was any more dependent on skills imported from Africa than were its tobacco and sugar counterparts in the Chesapeake, the Caribbean, and Brazil. The evolving transatlantic connections, the age and sex composition of the slave trade, the broad shifts over time in transatlantic slaving patterns, and the structure of slave prices are all largely explained without reference to a supposed desire on the part of rice planters for slaves with rice-growing expertise developed in Africa” (Eltis, at. al. 2007: 1335, 1357).

As Temudo notes, “In recent years, rice imports in the sub-region have been increasing in a worrisome fashion—from an annual growth rate of 5.54% in 1991-2000 up to 10.51% in 2001-2005 (WARDA, 2008a: 30). However, in spite of all the research and development efforts spent on the selection and diffusion of modern varieties, rice consumption has been increasing at faster rates than production, and the self-sufficiency ratio decreased, from 0.78 in the nineties to 0.58 during 2001-2005” (Temudo 2011).

Other relevant institutions for rice research in West Africa – and international agricultural research and development more broadly – include: the International Rice Research Institute (IRRI) in Los Baños, Philippines (founded 1960), the International Institute of Tropical Agriculture (IITA) in Ibadan, Nigeria (founded 1967), the Institut de Recherches
Agronomiques Tropicales (IRAT) in Paris, France (founded 1960), and the West African Rice Development Association (WARDA), recently renamed Africa Rice Center (AfricaRice), moving its operations from Liberia to Cote d’Ivoire to Benin (founded 1971).

13 Much of the agricultural research on tropical food crops for the Latin American and Asian Green Revolution was carried out under the auspices of an international research network coordinated by the Consultative Group on International Agricultural Research (CGIAR), funded largely by the Rockefeller and Ford Foundations, with additional financing from the World Bank and multinational corporations. Known as the CG System, it comprised ten International Agricultural Research Centers (IARCs), some of which continue their work with new injections of financing and purpose for the African Green Revolution.

14 Such as: colossal colonial debacles like the Tanganyika groundnut scheme; the Niger Agricultural Project in central Nigeria, which introduced tractors and other equipment inappropriate to soil conditions; to the Mechanical Cultivation Scheme in Sierra Leone, through which 4% of the country’s rice output was cultivated by tractors that consumed 80% of the Dept of Agricultures expenditures, and so on (see Richards, 1985).

15 Cernea’s article prompted a fruitful set of responses in the pages of this journal. See, for example, the Special Section of Culture and Agriculture, Vol. 28 (2006), Swaminathan (2007), and Fernando (2007).

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