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Interview with James McCann by Guillaume Blanc

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Electronic version

URL: <http://journals.openedition.org/etudesrurales/10659>

DOI: 10.4000/etudesrurales.10659

ISSN: 1777-537X

Publisher

Éditions de l'EHESS

Printed version

Date of publication: 1 June 2016

Number of pages: 113-124

ISBN: 978-2-7132-2519-2

Electronic reference

James McCann and Guillaume Blanc, « Bahir Dar and the lake Tana basin. History of an urbanshed », *Études rurales* [Online], 197 | 2016, Online since 01 June 2018, connection on 10 February 2020. URL : <http://journals.openedition.org/etudesrurales/10659> ; DOI : 10.4000/etudesrurales.10659

BAHIR DAR AND THE LAKE TANA BASIN

HISTORY OF AN URBANSHED

Interview with James McCann
by Guillaume Blanc

CARRIED OUT DURING THE 1980s, James McCann's earlier research might not have been labeled as "environmental history," without any doubt they can be considered as ground-breaking studies. Dedicated to the "rural history" of modern Ethiopia, his first book enlightened the current prevailing link between drought and famine by tracing how, during the first thirty years the XXth century, the millennia practices of the northern Wallo farmers had been eroded by significant changes in the region's political economy (1987). Few years later, James McCann explored the "agricultural history" of Ethiopia. He set the Ethiopian agriculture in the broader context of the national environmental and landscape history to trace how farmers adapted their ox-plow agricultural system (its crops, tools and labor organization) to both the natural cycles of rainfall and soil fertility and the deep urban and political changes of the XIXth and XXth centuries.

James McCann has been working ever since on both Ethiopian and African environmental history. His researches have been

focused whether on environmental transformation and degradation narratives [1994; 1997], whether on environmental practices and their social and political contexts [2000; 2001], or more recently on environmental material elements such as maize or malaria [2005; 2015]. While these works are notable for a variety of reasons, when it comes to environmental history at least two arguments make them outstanding ones. First, they always offer a "full" environmental history: an history that all at once is taking into account the institutional, cultural and material dimensions of the social relationships to environment. Second, these stories not only tell us something valuable about the African and/or Ethiopian environments, they also resort to environment to teach us something new about the African and/or Ethiopian societies. Here lays the very purpose of environmental history.

James McCann is now taking an interest in the comparative history of watersheds. The Ethiopian Lake Tana basin is at the very core of his new research project.

Bahir Dar is now the capital of the Amhara State-Region. However, it was not until recently that it became the "urbanscape" you are interested in. Can we clearly trace back the origins of this environmental process?

In 1905 Samuel Hayes, a British traveler passing by the southwestern edge of Lake Tana described there: "a village surrounded by a marsh of papyrus and a nearly village of two or three huts occupied by Wayto [hippo-hunting fisher folk]" [Hayes 1905]. Three decades later, in 1938, the Italian Tourist Agency published a detailed guidebook to their newly conquered East African colony.

That guide remains one of the most revealing snapshots of Ethiopia's state of infrastructure development in the year 1938. On page 383 of that guide is a description of the site of a seventeenth-century lakeside church Bahir Dar Giyorgis and what the Italians had built as the site of their *Residenza del Tana Meridionale*, a rural administrative district (not a town) that encompassed the population of a rural district (c. 25,000). The *Guida* listed official colonial buildings as a post office, a telegraph office, an infirmary, airstrip, and a landing for a lake transport boat. It was a superimposed on a lakeshore site, not a city or even a town. The *Guida* tells us that Bahir Dar was barely a "village" comprised of Abyssinian and Wayto thatched houses near the shore Orthodox church [*Guida* 1938]¹. Not much had changed in those three first decades of the twentieth century.

Since then, four distinct periods of economic, demographic, and spatial change transformed the physical landscape and its effect on the region's hinterland on a local, national and international level—that would form the "urbanscape" of the early twenty first century. There are four phases of this expansion:

1. Pre-1960: "A Fatal Zone"
2. A Cat's Paw of Colonial Threats Haile Sellassie Era: 1930-1960
3. Era of the Dam and Cotton Factory: 1960-1974
4. Bahir Dar in the Age of Socialism: 1974-1991
5. *Hedasse* (Renaissance): The Industrial Urbanshed Tana, High Modernism?

Before the 1960s, the Lake Tana basin history appears to be mostly rural. In this natural yet human history, what social roles did the material elements of the environment play: the lake itself, and the malaria that was associated to its basin? [1. Pre-1960: Historical Antecedents of a "Fatal Zone"]

In the years until 1960, Bahir Dar's modern urban site was sparsely settled and the threat to human health was a recurrent theme for the lake's edge. Two French visitors to the lakeshore in the nineteenth century had called the lakes' endemic malarial region a "deadly zone." In the mid-twentieth century, sudden, and quite "deadly," malaria epidemics had broken out in 1953 and 1958. Tens of thousands rural folk died in those epidemics, leaving little doubt that the lakeshore had never collected an urbanshed that attracted a historical urban settlement, urban economy, or administrative core like that at Gondar or, later at Addis Ababa.

Lake Tana is at the Blue Nile's first major outflow and is the heartbeat of the watershed, registering its seasonal pulse². Lake Tana and its surrounding ecologies is the font of the Blue Nile's waters, sitting at 1800 meters above sea level from where it frames much of the watershed. The lake's geological origins were a volcanic blockage of the river's stream

1. The *Guida* map of the region misplaces Bahir Dar Giyorgis 100 kilometers south of the lake.

2. Tana, however, is not technically a pulse lake, like Cambodia's Tonle Sap on the Mekong river. The Blue Nile's waters rise and fall with the season, whereas the Tonle Sap has an annual backflow that sustains its own distinctive aquatic ecology.

about two million years ago by a 50 kilometer-long flow of basaltic molten rock that trapped water in the shallow basin that was to become lakebed.

But the Blue Nile headwater hydrology was a dynamic, changing flow and there is also evidence that the lake dried up 15,100 and 16,700 years ago and became a papyrus swamp. There was, in geological time, a major change in lake ecology and biological habitat took place. In this dry phase historical geologists estimate that rainfall was less than 40% of what we expect has been the pattern in the last two centuries. Then, about 14,750 years ago, water in the entire Nile system seems to have increased and the lake overflowed the volcanic blockage into the Blue Nile riverbed again. This process seems also to have happened in the junior partner East Africa's White Nile when Lake Victoria, also in a dry phase, filled to overflowing—allowing new fish sub-species diversity to evolve in those new ecologies. The Nile system in its more recent geological history has regained its permanent flow, though still with the strong seasonal, pulsing rhythm that drives the Blue Nile watershed's ecology and gives us the modern ecology of human health and disease that still frames the Bahir Dar urban-shed setting [Lamb *et al.* 2007].

In its recent history, including the XXth century, the lake is still a shallow vessel, with a maximum depth of only 14 meters. Four small rivers drain into the lake, and the Blue Nile is the lake's only outflow. The lake's oxygen level is unusually high. Though the flow of water connects the river's water and silt through the lake and into the great Nile

flow towards Khartoum, the lake's discharge at the outflow makes up only a total of 8% of the annual total into the overall Blue Nile watershed. The river and lake's fish biodiversity results from the dramatic fall of 40 meters at the Tissisat ("Smoke of fire") 30 kilometers downstream from the Blue Nile's outflow, preserving the lake's remarkable fish ecology.

Tana's biological endemism may be a thing of the past. Twenty-eight fish species inhabit the lake, twenty-one of which are endemic. Seventeen of those species are large barbs, types unique to this place and its ecological cocktail. Only height fish species inhabit the river basin both above and below the falls. Fish and other aquatic organisms did not ascend the river to inhabit the lake. Fish species, plant life, and malarial habitat around the edges of the lake itself developed their own historical character (its endemism) isolated from the wider Nile system, a system ended in 2006 by the opening of Tissisat Abay II dam at the falls' site.

The eastern and southern shores of the lake display a deeply seated malarial ecology in swamps dominated by papyrus, water lilies, and wet "black cotton" soils. Large and sprawling fig trees (*Warqa*) overhang the water's edge, providing nesting spots for African fish eagles whose shrieks are among the first sounds of morning. Yet, it is not the lake itself, but its seasonally flooded edges that form its malaria setting. The lake itself offers few habitats for mosquitos, but the surrounding wetlands and puddles formed by receding lake water in the early dry season left habitat for *An. pharoensis* and *An. funestus* mosquitos that may have been primary vectors that

made the lake area historically “a fatal zone” along its edges [Abebe Getahun and Eshete Dejen 2012].

Malaria has long lived there at the lake’s edge, and framed human health and settlement for those who dared to make their living there. Through the millennia, the actions of Ethiopia’s people on the highlands did little to alter these slow rhythms, compared to other, deeper effects of climate fluctuations like the Little Ice Age or the seasonal pulse of rainfall, surface water flow and annual highland agriculture’s scratching out human livelihoods on the non-malarial uplands (above 2300 meters elevation) on what European visitors called Ethiopia’s “salubrious” highlands [Harris 1844 vol. 1: 314-315].

The Blue Nile basin, its geology and its geographies simultaneously shaped the cultures of several distinctive peoples. The ethnographic landscape included Christian highland farmers and aristocrats, Cushitic-speaking Agaw farmers, Muslim traders (who spoke Amharic), and Omotic-speaking Shinasha. These cultures traded places and bodies of knowledge on the local ecologies over time, resulting in a cereal-based agro-economy that supported livestock and small farms that managed them. A few small trade towns sprouted—Burie, Dangla, Debre Tabor, Meshenti—but no urban population centers beyond Gondar in the high setting north of the lake (and above 2000 meters elevation).

The Tana watershed itself is not a political boundary, but it has a western lowland political border, since an obscure 1902 treaty between the British government and Emperor Menilek II included setting an international

border with British controlled Sudan, even though its Nile/Tana waters and human ecology tend to ignore such political ideas. Within the change of seasons and human movements, malaria and other diseases danced in the ecologies of elevation, watery habitats, and human adaptations to them. Epidemic, unstable malaria is one of the deadly disease outcomes of the human/natural ecology, though so too were other enduring maladies of the watershed, exotic diseases of the sub-tropical world. We can count among these: rinderpest, kalazar, yellow fever, tick and louse-based relapsing fever, and lower intestinal tract infections. These were mainly lowland diseases that kept most human settlements away from lower elevations, but those infectious maladies periodically washed up and over highland zones, causing fatalities and sickness at an alarming rate.

More than canary in a coal mine, malaria was not a sign of a problem but was the problem itself. Malaria’s fevers and human sufferers gave us the human landscape. In the longer-range past these were the drivers of where people in the watershed lived, and when they could move about. The disease and appearance of its vectors (three types of anopheline mosquitoes) marked seasonal change, almost as much as the rigors of the agricultural season, though in the higher areas malaria was an unstable marker of time.

Diseases fundamentally molded human history in the watershed. But malaria in its epidemic forms was by far the most deadly local disease that shaped the movement of peoples. Malaria was the aggressor and humans responded defensively; moving to safe areas but

periodically enduring epidemic outbreaks that swept from lowland hotspots to highland populations. The southern edge of the lake was not a prime area for human settlement. In those settings malaria was the lead partner in the dance rather than just an opponent on the other side of the chessboard.

Environmentally, the Blue Nile watershed was the first part of the northern highlands to receive rains in the late spring/early summer months from the heavy rain bearing clouds from the southwest. Whereas rainfall shadows on the eastern side of Ethiopia often curtail rains so essential for agriculture, the Lake Tana/Blue Nile highlands were blessed with consistent seasonal rainfall. Peoples of the Blue Nile/Tana watershed had, over time, married their annual cycles of growing food, coupled political life, and religious ritual to their ecological setting. Monasteries and major church sites to the east and south—Debre Tabor, Debre Marcos, Martola Mariam, Dembecha, Burie Mikael dominated religious life, though Muslims had long plied the trade routes and small market centers. Once established after 1960 Bahir Dar town had always had a strong Islamic presence. Trade between the region and the Nile and the Red Sea percolated across ecological zones that were malarial in relatively predictable seasonal rhythms. Malaria did, however, spill onto the highlands once or twice a decade (as best we can figure).

Malaria in particular was an unwelcome, but sometimes visitor to the highland zones where people lived, and a more permanent resident of the lowland where only people on political or ethnic margins dared to live.

Malaria on the edges of the region was, to some along the edges of ecological zones, a regular part of life. But it was a delicate balance of early death for infants, but also for adults, since Ethiopia's "unstable" malaria meant that no highlanders developed acquired immunity. Those few lowland dwellers who survived to adulthood in the hot lowland zones on the west, likely had built acquired immunity—or died in childhood from *falciparum* malaria.

Climate as the lake's southern edge changed in the past 200 years, as it now has entered a period of post-Little Ice Age warming. But the ecology of the Blue Nile watershed in the 1770s that Scottish traveler James Bruce witnessed was part of that Little Ice age, a force of nature and human response to it. Water and nighttime temperatures during those times were different than more modern periods after the mid-19th century. Climate science using soil profiles, lake sediment cores, or glacial records on European landscapes tell us that in the 1770s parts of the planet were in a cooling period brought on by low solar radiation, changes in ocean temperatures, and perhaps volcanic activity when a "glacial expansion" that began about 1550 and lasted until the mid-19th century included the period when Bruce was in the Blue Nile region. If Bruce tells us that in the 1770s he saw snow on the top of the peak Ras Dashan, we should believe him; even if that snow that did not appear in the XXth century. We might well read that as a sign of what 2007 International Committee on Climate Change calls glacial expansion [Pachauri and Reisinger *et al.* 2007].

Snowy icecaps in Bruce's time might mean that nighttime temperatures would have been lower: fewer mosquitoes, fewer and less potent falciparum parasites maturing in mosquito guts, and perhaps later dates of harvest for grain crops. But what were the broader effects on health, politics, and the overall human condition in local settings in Ethiopia?

Ethiopia's malaria ecologies coincided with Europe's new colonial ambitions. We know few details of actual local climate conditions, but we can surmise that rising temperatures, especially at nighttime may have changed the geography of those disease transmissions, especially for malaria. In this period political changes and conflicts like Emperor Tewodros' violent rule (1855-1868) engulfed the central Ethiopian region. The Lake Tana basin was a rural hinterland to these changes, but not a seat of power.

We know something about political change in the mid-1800s, we know next to nothing about the social or ecological life of disease or health in the Blue Nile watershed or the later site of Bahir Dar town in that period. Travelers reported their fears of fever, but voices of the true status of economic change in the watershed were silent for decades. In this period the major source of economic and ecological stability at the local level was its grain-based ox-plow agricultural ecology. Calamity's like the arrival of cattle-killing rinderpest and great famine in 1889-1891 affected the lake region, as the Spanish Flu that came in 1919. But we have little description of the local effects. As the Tana area recovered from those disasters, all evidence is that it assumed a similar pattern of agro-ecology and politics as had existed before,

though now under an expanding Addis Ababa-centered political structure. The Tana watershed was rural and gave few signs of the urbanished that would appear after 1960.

In 1953 we find a detailed, local view of the Lake Tana shore at Fogera, a flat, black-soil plain where the Gumara river feeds into the lake's edge. One local Ethiopian visitor—a loquacious traditional healer who was there during the 1953 malaria outbreak—offered poignant testimony. This observer knew the local landscape and its history of disease and vegetative cover. Dabtara Asres—the healer/cleric—tells us about the 1953 landscape he knew:

The fevers caused misfortune in Foguera. This is extremely flat country and during this period nothing could grow there, not even eucalyptus like today. It was plain, absolutely bare. During the day the hyenas hid in Aferouannant, in Oudo, in Amora-Guedel, and in Dera, in the woods. They knew where to find carrion. At night, they did not stay in the hills; they descended on Foguera to feast on the dead cattle along the roads... [Mercier 1988: 384-91].

But this was a landscape that in two decades would emerge, tenuously, as fertile ground for economic development.

The reign of Haile Sellassie, the first one (1930-1936) and even more the second one (1941-1974), is usually seen as the historical turn that gave shape to modern Ethiopia, in its political, but also economic and urban dimensions. Is it also the case for the Lake Tana region? [2. Lake Tana: Cat's Paw for Nile Diplomacy, 1898-1960]

The Lake Tana watershed became an international focus in the early twentieth century when the Nile's greater basin came under the vision of both the British Empire and Ethiopian centralization, with the hydraulic facts that the Blue Nile provided 84% of the water reaching Egypt—and virtually all of the silt that nourished agriculture in the Nile Delta [Garstin 1904; Grabham and Black 1925]³. This understanding by British colonial strategists played a central role. The British idea of a Lake Tana dam emerged shortly after a Nile treaty signed in 1902. The following rise of commodity prices casts light on both the value of Nile waters for development, and the cost of losing control of them. British negotiations with Ethiopia over Blue Nile waters continued for a decade and a half, until the Italian invasion in 1935 [McCann 1981].

Yet, realities of infrastructure capacity also continued to isolate Lake Tana from regional and local political economies. Up to the 1935 Italian invasion, little had taken place to link Lake Tana to the nation or the world. The difficult Blue Nile gorge would not have a bridge until 1933. During the June-September rainy season the river posed an impassable barrier, isolating the lake region and its economy. The rains even interrupted the single-line telephone connection that, in 1920, reached only to Burie, a town 180 kilometers south of the lake. Beyond infrastructure, Ras Tafari (aka Haile Sellassie after 1930) faced political opposition from regional leaders who sought to be part of a financial agreement on a dam and wanted to keep their local autonomy from the distant new economic and political center in Addis Ababa. By 1930, the newly crowned Haile Sellasie had used the Tana waters as

only a cat's paw, but actually had no real means of controlling the lake's waters or its economic potential.

In that era the Bahir Dar region was only a rural economy poorly service by health infrastructure or penetration by a national economy. In 1953 and again in 1958, the area of the lake and its hinterlands suffered the devastating effects of a malaria outbreak. Tens of thousands of rural folk had died. The Blue Nile watershed's agriculture and its relationship with human settlement had evolved over many generations of smallholder agriculture and its regional role in trade. Gazing out at the agrarian landscapes that surrounded newly burgeoning towns in the 1970s, one could easily witness persistent practices that gave its fields and landscapes their visual character. The future Bahir Dar urbanshed was yet to appear.

With the first hydroelectric dam built in the early 1960s, industrialization started to shape the regional physical landscape. Did urbanization go hand in hand with these changes or did the Lake Tana basin and Bahir Dar histories remains rural ones? [3. The Era of Tisisat Dam and an Industrial Foothold: 1960-1974]

What underlay a quiescent Tana watershed still were the annual rhythms of a rain pattern that set agricultural cycles. In the early years of the 1960s Ethiopia's development plan included a new, planned city at that southern

3. For example, in a 1902 measurement at Khartoum, in August, the Blue Nile discharged 9.544 cubic meters per second, while the White Nile offered only 710,58.

edge of the lake. This planned urban center, Bahir Dar, that linked the building of a textile factory, a smallish 11.5 MW hydroelectric dam at the Blue Nile falls, and a longer-range plan to move the new city forward as an administrative capital. By 1974 when the Ethiopian revolution had deposed the emperor in favor of a military socialist plan for the regional economy and the town itself, Bahir Dar had only a modest footprint on the landscape. The town boasted 24 hour-electric power (for town residents), and hosted a grass landing field for a once a day DC3 flight, a Russian polytechnic institute, a movie theater, a German-built hospital, and a grid work of roads that marked a city that planners imagined. Nearby market towns had 12-hour diesel power, a few had piped water, and the transport grid included.

The modern bridge over the Blue Nile river leading to Addis Ababa came in 1960. Bahir Dar's foundations as a planned urban settlement emerged in tandem with the first small (11.5 MW) hydroelectric dam at the falls and a new textile factory. Bahir Dar's street grid was planned, but not yet populated with population or much commerce. The urban footprint was small, reaching only a few kilometers beyond the official city limits, or across the Blue Nile's emergence from the lake at Charachara.

Provincial town in Ethiopia's Tana/Blue Nile basin were sleepy burghs, Gondar north of the lake, and Debre Marcos the then provincial capital was 300 kilometers on a gravel road south towards Addis Ababa. The end result of the plow, farmers' local experience, and crop mixing was the patchwork quilt landscape of small plots growing diverse

crops—teff, eleusine (*dagusa*), maize, wheat and pulses like lentils, field peas, and fava beans. From my own observations living in the area for two years in the mid-1970s, I had in my mind's eye a human landscape of dispersed homesteads surrounded by fenced gardens and crop fields scattered willy-nilly across the rural scene—green, cropped fields in the summer and golden at harvest in the late fall; brown, harvested fields by December and January.

Highland watershed farms sat on a mid-altitude plateau around 2,000-2,300 meters high above a marginal lowland descending southward into the Abbay (Blue Nile) gorge where population was sparsely settled. Above was a new road that retraced the old caravan route that linked the coffee-rich areas on the Blue Nile's southern bank to market towns and thence to the old imperial capital at Gondar and destinations north. There was no bridge on that old coffee-trading route until the early 1980s.

The local agricultural system, as it turns out, had become a part of this dance. Tana watershed farmers, like their compatriots in Tana basin middle-range elevations, used little chemical fertilizer prior to 1980, though they had long applied manure and ash on household garden crops such as maize, kale, capsicum (red pepper), and herbs cultivated inside their fenced homestead compounds, called *gwaromaret* (household garden plot). In this old farm landscape, maize plants were a minor partner: local, early maturing types germinated with the first rains that shed their pollen in the cool months of June and July when heavy rainfall washed pollen out of the fields, and the plants produced green ears in

August and September. Roasted or boiled, these young ears (*eshet* in Amharic) offered welcome snacks when food shortages preceded the main harvests in November and early December. Those changes from the 1960-74 period were ephemeral at best for the Blue Nile watershed (and its “urbanshed” at the lake’s edge). That was to change with the arrival of modern maize seed and national agricultural markets after 1980, beginning a new phase of Ethiopia’s agricultural modernization.

The government of the Derg failed to build a socialist economy. However, the policies launched by Mengistu deeply transformed the production structures, the soil status and more broadly, the landscape of Ethiopian countryside. How did it shape the Lake Tana basin and its hinterlands? [4. The Watershed in the Era of Socialism: 1974-1991]

Until the 1980s, maize was minor field crop in the northern highlands and appeared on farms mostly as a garden vegetable consumed green in the “hungry season” (August/September). Farmers chose from among an array of early maturing local maize types, the best-known ones they called *Mareysa*, *Harer*, and *Kafa*. Some of these probably arrived in Ethiopia via the Nile Valley in the nineteenth century, some from U.S. agriculture aid programs of the early 1950s, while others may have been descended from the original imports brought from the New World (via India) by Arab and south Asian merchants plying the Red Sea trade in the sixteenth century. Maize’s most common name in northern Ethiopia was *Ya Baharmashela* (“sorghum from [across] the sea”). At first, maize had a

value mainly as a welcome snack for farms awaiting November-December cereal harvests. By the time malaria season came to the lowlands below, the maize on plateau fields near Burie was already ripening and fallen pollen had washed away with the heavy rains of July.

In the early 1980s political changes brought a transformation in Ethiopia’s agrarian economy and agro-ecological balance. Under the socialist military government known as the *Derg* that ruled from 1974 to 1991, grain-marketing policy, forced labor, insecurity over land holdings, and government food security programs brought increasing political chaos but also changes in Ethiopia’s national crop patterns. Ethiopia’s socialist government saw maize as a high yielding field crop to replace labor-intensive teff, a disease-prone wheat, and poor-yielding sorghum. As in the Soviet Union, Ethiopia’s socialist planners used maize as the ultimate product of an industrialized, scientific agriculture. For their part, farmers saw maize as a low labor, quicker maturing crop that provided food in insecure times when the socialist State forced their labor onto public works projects like tree planting or fixed the prices for their other farm produces. Farmers were confused and maize was a rational choice in troubled times. By the mid-1980s maize had unceremoniously surpassed teff and barley as the major grain crop produced in the region. This agricultural ecology based itself on small farms and still formed the basis for politics and local economies that were the canvas on which national issues played.

Socialism and an interventionist military government had attempted to bring its policies to a rural landscape in the Blue Nile

watershed. It largely failed. In 1992 the road from Bahir Dar south to Addis Ababa had deteriorated to a rutted roadbed barely worthy of being called a road. Retreating government soldiers and invading rebel troops in 1991 had turned Bahir Dar's German mission hospital into a morass of files strewn on the hospital's open courtyard with patients wandering around empty wards. Diesel fuel in town was in very short supply; my vehicle obtained its supply from under the bed of a woman of ill-repute who sold it at a premium price to those who could pay.

Foreign investment had dried up. In the late 1980s socialist Ethiopia had the lowest per capital international aid of any country in the world. Yet, the government had nonetheless pursued its own style of development in the countryside of the watershed. At Pawe, an Italian firm contracted to build the Tana Beles dam to channel water for agricultural development out of the Nile system and the lake. The Green Revolution (*Aranguade Zamacha*) had also marched students out of towns to new lowland settlement areas on the lowlands to build villages. This program was an abject failure that resulted in massive outbreaks of malaria, dislocation, and forced settlement of highland people onto empty landscapes.

To its credit the government had expanded rural roads and at least had begun the development of a rural administration that set the stage for Bahir Dar's emergence as an administrative center. Bahir Dar took on a new status as capital of Amhara region and absorbed the benefits of a new class of administrators, a university, and agro-industrial businesses.

As the Federal Republic is now about to complete building the Renaissance Dam, with no

doubt the Lake Tana basin will be transformed if not forever, at least for a very long time. Does this mean that the region can no longer be defined as a watershed? [5. Hedasse (Renaissance): Bahir Dar was Urbanshed, High Modern Ambitions?]

In 2012 I traveled the tarmac road from Bahir Dar north to the crossroads town of Warata (and thence on to Gondar). The egress of the Gumara River showed a very different than Dabtara Asres had described for 1953. On the right side of the road were smaller plots which had annually planted vetch (gwaya), a toxic pulse crop that tolerated black soils and flooding. Those plots were now irrigated plots of medium-grain rice cultivated by ox-plows and using diesel pumps to extend their planting and harvest seasons. That change had begun with a North Korean development project under the socialist government which had returned to smallholder ox-plow agriculture that included rice within its crops repertoire. The area sold its tomatoes, red onions, and lettuce to tourist hotels and market shops that served tourism but also new urban residents on government salaries. The city had emerged as the region's economic engine.

James C. McCann

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Abstract

Bahir Dar and the Lake Tana Basin. History of an Urbanshed, Interview with James McCann by Guillaume Blanc

James McCann provides here a template regarding Ethiopia's rural modernization in four distinct periods of demographic and spatial change that transformed the physical landscape of Lake Tana at Blue Nile river's headwaters and its effect on the region's hinterland on a local, national and international level that would form the "urbanscape" of the city of Bahir Dar in early twenty first century. Lake Tana and its surrounding ecologies is the font of the Blue Nile's waters, sitting at 1800 meters above sea level from where it frames much of the watershed's political and cultural ecology.

Résumé

Bahir Dar et le bassin du lac Tana. Histoire d'un bassin urbain, Entretien avec James McCann par Guillaume Blanc

James McCann propose ici une réflexion sur les étapes de la modernisation rurale de l'Éthiopie. Quatre périodes distinctes de changements démographiques et spatiaux ont transformé le paysage physique du lac Tana sur le cours supérieur du Nil bleu, et formé, au début du XX^e siècle, au croisement des échelles locales, nationales et internationales, le « paysage urbain » de la ville de Bahir Dar. Le lac Tana est la source des eaux du Nil bleu. Perché à 1800 m au-dessus du niveau de la mer, il façonne la majorité des écologies politiques et culturelles du bassin hydrologique. Le bassin du Nil bleu, sa

The Blue Nile basin, its geology and its geographies simultaneously shaped the cultures of several distinctive peoples. The ethnographic landscape included Christian highland farmers and aristocrats, Cushitic-speaking Agaw farmers, Muslim traders (who spoke Amharic), and Omotic-speaking Shinasha. These cultures traded places and bodies of knowledge on the local ecologies over time, resulting in a cereal-based agro-economy that supported livestock and small farms that managed them. In the early 1980s political changes at the national level brought a transformation in Ethiopia's agrarian economy and agro-ecological balance. A major component was the arrival of modern maize seed and national agricultural markets after 1980, and the construction of the Grand Renaissance Dam, beginning a new phase of Ethiopia's rural modernization.

Key words

Blue Nile, Ethiopia, Lake Tana, agrarian change, ecology, hydroelectric dam, malaria, rural modernization, urbanised, watershed

géologie et ses géographies ont façonné simultanément les cultures de plusieurs groupes sociaux. Son paysage ethnographique comprend des agriculteurs et des aristocrates chrétiens des hauts plateaux, des agriculteurs agaw de langue couchitique, des commerçants musulmans (qui parlent amharique), et des Sinasha de langue omotique. Source de l'hybridation de leurs territoires et savoirs écologiques, la rencontre de ces cultures a progressivement donné naissance à une économie agraire céréalière fondée sur le pastoralisme et la micro-exploitation agricole. Puis, au début des années 1980, les changements politiques qui se déroulent à l'échelle nationale transforment l'économie agraire éthiopienne et modifient l'équilibre agro-écologique. Les composantes majeures de ce changement sont l'introduction de semences modernes de maïs, l'établissement d'un marché agricole national après les années 1980, et la construction du barrage de la Renaissance, ouvrant une nouvelle phase de la modernisation rurale éthiopienne.

Mots clés

Nil bleu, Éthiopie, lac Tana, changement agricole, écologie, bassin hydroélectrique, malaria, modernisation rurale, bassin urbain, bassin hydrologique