

The 'Third Bank' of the Lower São Francisco River:
Culture, Nature and Power in the Northeast Brazil 1853-2003

By

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University of California, Berkeley
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Abstract

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Doctor of Philosophy in Energy and Resources

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Professor Richard B. Norgaard, Co-Chair

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My dissertation examines how Brazilian modern water resources management in the São Francisco River has obtained its authority through a set of discursive displacements rooted in late 19th century imperial and early 20th century republican visions of nature and race. I argue that those discursive displacements, especially along the São Francisco River banks and islands, construct and give meaning to one entity – the “river of national unity” - within a historically and geographically specific system of signification (transportation, electric energy, irrigation, crops, and productivity) that is genealogically related to geopolitical aspirations supported by 19th century scientific and engineering river expeditions. The São Francisco River extends through six Brazilian states, crossing semi-humid and semi-arid terrains as it moves from the central-south highlands of Brazil to the dry northeast plateaus and mesas. The river drains water from an area of 644,000 km², 8% of the Brazilian territory, with a current approximate population of 18 million people, living in 503 municipalities, including the capital city of Brazil, Brasilia DF.

Based on archival information gathered from government and industry sources, as well as over 60 semi-structured personal interviews and participant observation with artisanal fishing

communities, natural scientists, policymakers and social and environmental activists involved with the São Francisco River in the states of Alagoas, Bahia, Pernambuco, Minas Gerais, Sergipe, and Goiás, this study points to historical, cultural and political processes through which the identities living in, working on and managing the São Francisco River attain legitimacy. This study argues that representations of the São Francisco River have evolved from the modernizing “river of national unity” to a “landscape of mourning” evoking the return of traditional cultural values. In that sense, my story unfolds the national discourse of modernization of the São Francisco River as the backdrop to the displacements it carries to the ecology and the “traditional way of living” along this River. My findings show that developers during the mid 20th century made the traditional communities along the river invisible on maps and plans. This enabled the large water projects to “work” in controlling nature and stabilizing social and political movements, while erasing “traditional” cultures from national views. However, since the mid 1980s, protests along the São Francisco River against large water projects led initially by priests of the Catholic Church, and then by NGOs and civil society, invoked traditions along the river – for instance portrayed by gendered and racial images of traditional artisanal fishermen – as a call for river preservation. Although the images of traditional fishermen represented the river as their place of livelihood, their very localness has nonetheless challenged the hegemonic representation of the São Francisco River as “the river of national unity”, based on the assumption that the river has to support large infrastructure projects, into one of “disunity”, based on the assertion of local identity claims.

Centennial traditional fisher communities, living along the swamps, islands and banks of the Lower São Francisco River, themselves have claimed the river as part of their traditional territory. They have organized their own movement to “save the dying river” and refused to let others speak for them, but instead with them. They are also finding new methods to empower themselves, by working together through church and politics to build new alliances that

incorporate science and gender, and expand their participation in watershed committees.

Therefore, traditional fishers are looking at strategies for local, regional and national political action and winning a voice in river politics, attaining new legitimacy over the river that has been taken from their past and present.

However, if the São Francisco River is a deeply cultural and political space, then it is so in ways that bears the continued imprint of Brazilian imperial and early republican views of nature and race. I argue that concepts of river, traditional population, nation, and so on, are not given once for all but are themselves critical sites of political struggle and are historically contingent. In this sense, cultural identities are dynamic and fragmented rather than static and timeless. They do not emerge in some voluntary fashion in which individuals choose freely between alternatives, but through continuous reenactment and stabilization within discursive practices. Looking at these historical layers of culture, knowledge, politics and economics is critical to understanding the environmental and social justice issues of the São Francisco River. By analyzing the rhetorical and material efforts of developing and saving the river, this research uncovers multiple images and representations given to local fishing populations by different social groups. It is in this sense that this dissertation investigates the “third bank” of the Lower São Francisco River: a Pandora’s Box of river politics that is not only divisive, but also forms the basis for cooperation between many “marginal” groups living along and beyond the São Francisco River’s two visible banks.

Prof. Richard B. Norgaard, Co- Chair

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Dedication

I dedicate this dissertation to my grandmother, Izabel Marson, my mother and father, Maria Marson and Antonio de Andrade, my brother and sister, Antonio de Andrade Filho and Paula Pujol who inspired me to value both learning and school as fun journeys. I dedicate it to my husband, Peter Downs, who has shared these journeys with me. I also dedicate it to my nephew and niece, Guilherme and Alexandra, whose journeys have just begun!

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List of Acronyms

ANA - National Water Agency
ANEEL - National Electric Energy Agency
APA – Area of Environmental Protection
BHSF - São Francisco River Watershed
BID – World Bank
CASAL – Company of water supply and wastewater treatment of Alagoas
CASAL – Water and waste treatment Company of the State of Alagoas
CEB - Base Ecclesial Communities
CBHSF - Watershed Committee of the São Francisco River
CHESF - Hydropower Company of São Francisco
CIMI – Missionary Indigenous Movement
CGIAR – Consultative Group on International Agriculture Research
CNRH - Council National of Water Resources
CODEVASF - Company of Development of the São Francisco and Parnaíba Valleys
CONAMA – National Council of Environment
CPP - Pastoral Council for the Fishermen
EMBRAPA - Brazilian Enterprise of Agriculture Research
FAO - Food and Agriculture Organization
FDRSF – Forum of Defense of the São Francisco River
FUNDAJ – Fundação Joaquim Nabuco
GEF - Global Environmental Fund
IBAMA - Brazilian Institute for Environment and renewable natural resources
IBGE - Brazilian Institute for Geography and Statistics
IBDF – Brazilian Institute for Forest Development
ICLARM – The World Fish Center
ICSF - International Collective in Support of Fishworkers
IFOCS – Federal Department of Drought Control Service
IMA – Institute of Environment of Alagoas
IPHAM – Brazilian Artistic and Natural Heritage
IRRI – International Rice Research Institute
ITWTSFR – Interbasin Water Transfer in the São Francisco River
MI - National Department of National Integration
MMA - National Department of Environment

MME - National Department of Mine and Energy
MONUMENTA - National and Global Human Heritage Program
MP/AL - Public Bureau of Alagoas
MST- Landless Workers' Movement
NUPAUB - Centre for Research on Human Populatiuon and Wetlands in Brazil
PAE - Program of strategic actions for the integrated management of the São Francisco River Watershed and estuary
PBHSF - Plan Decennial de water resources for the São Francisco River Watershed
PLANVASF - Integrated Development Program for the São Francisco Valley
PM-AL –Military Police of Alagoas
PNMT - National Program for tourism
PNRH - National Policies for Water Resources
PPCAUB - Program of Research and Conservation of Wetlands in Brazil
PPA - Federal Pluriannual Plan
PROBIO - Brazilian Project of Conservation e sustainable use of biological diversity
PRODES – Program for clean watersheds
SEAP - Bureau Especial de Aquaculture and Fish of the President of Brazil
SETUR - AL – Bureau of Tourism of Alagoas
TEK – Traditional Ecological Knowledge
UFAL – Federal University of Alagoas
UFPE – Federal University of Pernambuco
UFS – Federal University of Sergipe
USBR – United States Bureau of Reclamation
USAID – United States Agency of International Development
VBA – A Brazilian consultancy firm working with the consortium Jaako Pöyry-Tahal
Z-12 – Fishermen guild of Penedo

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I. A River of Symbols

It is believed that a long time ago, deep in the heart of the Canastra Mountains in Minas Gerais, Brazil, there was a beautiful young Indian girl named Iati. In her time, there was a great war and Iati's lover was called to defend their land and their people from the invaders. But the invaders were many, with great powers and ammunition, and the Indian warriors sank in the wrinkles of the deep forest. Iati, sad and alone, cried copiously until the last days of her life. Her desperate tears formed the waterfall whose waters follow the sunken footsteps of the Indian warriors, forming the great river-sea, known to the Indians then as Opará, and to us today as the São Francisco River". – (Legend of the tears of Iati, translated by Gisele Henriques)

This is the river called Opará, baptized by the Indians, 500 years ago the Portuguese arrived and called the river São Francisco. The river rolls down from the town of São Roque, in the Canastra Mountains, in the tablelands, and unites with rivers, várzeas and lakes from four great regions: Upper, Medium, Sub-medium and Lower. There live 15 million people, more than 3 thousand km of length, its basins has 640,000 km² and 503 municipalities in seven federal units. The river is denominated National Unity, and crosses the dry hinterland to meet the sea. Our ancestors lived on the beautiful lagoons. The river was a place where great steamboats and large vessels used to transport goods, they used to stop in Penedo, importing and exporting goods from everywhere. (Seu Toinho, Pescando Cidadania 2002:1)

With the new millennium, Brazil celebrated the 500-year anniversary of its discovery by the Portuguese. The festivity involved intellectual analysis of Brazilian historical, cultural and environmental transformations; popular demonstrations; and an intense participation by the media¹. The public flooded museum installations nationwide, especially in large urban centers, then saw innumerable program specials on TV, radio and in newspapers. Alongside the popular celebrations, indigenous peoples and groups of African descent organized protests against the “discovery” and past displacements from their original territory. Taken together, the events formed an incredible, multifaceted, and contradictory image of Brazil.

One year later, on the 4th of October 2001, another large celebration occupied the attention of national newspapers and television: the 500-year anniversary of the discovery of the São Francisco River: “the river of national unity”, named for St. Francis of Assisi by explorer

Americo Vespucci in 1501. As Candace Slater noted: “The most famous river of Brazil is complicated to study, especially when you have many symbols and meanings attached to it.” The meanings and symbols referred to by Prof. Slater² are quite distinct from those attributed to any other river within Brazil’s territory. Even the “mighty” Amazon River³ did not receive the same national attention during the celebration of Brazil’s 500 years. The Amazon River, symbol of Brazil to the outside world, is second to the informing Brazil’s own national identity.

The São Francisco River currently extends through six Brazilian states. The main river crosses semi-humid and semi-arid terrains as it moves from the central-south highlands of Brazil to the dry northeast plateaus, granitic mesas and flatlands. The river drains waters from an area of 644,000 km², 8% of the Brazilian territory, with a current approximate population of 18 million people, living in 503 municipalities, including the capital city of Brazil, Brasilia DF. The centrality of the São Francisco River in the national imagery is a result of creating representations and narratives of the river as natural/national space. First, came the Eldorado narratives, resulting from incursions into the interior when explorers searched for gold and precious stones; then it was the empty/abandoned territory narratives when colonizers seized land through land grants, isolating the region from the coast; and finally the national unity narratives when Brazil was in danger of fissuring into bits.

This dissertation is divided into four sections. Section I presents the reader not only with background stories about the São Francisco River, such as first expeditions and early history of settlement, it interprets critically the role of cartography as representation and power, and how it illuminates current social conflicts over the river’s waters, islands and banks. I argue that those present conflicts are contingent to colonial and imperial views of nature and race. By paying attention to cartography politics and land grants in the period following Portuguese explorations during the 16th century and beyond, I argue that the history of the land grant system and settlements emerged out of cartographical information coming from those expeditions.⁴ This

cartographical information had important material consequences to the population who live on the riverbanks. In the words of Euclides da Cunha (1902), one can find in the settlement history around the São Francisco River a mix of environmental and social determinism that creates the narratives of what the river is and who gets what along this river:

Whoever views the settlement along the São Francisco river, from its source to its mouth, cannot fail to observe the three types of country: leaving the Alpine-like regions, with cities perched high on the mountainsides, reflecting the incomparable daring of the *bandeirantes*, he will cross the great plains, a huge arena made to measure of a rude, strong and free loving people, the *vaqueiros* (cowboys), and then finally he will come to unprepossessing district laid waste by drought and elected for the slow, laborious circuits of the missionaries.⁵

I argue that until the 18th century the São Francisco River as “a route for colonization” served to stabilize the ideas of natural/national territory that emerged so strongly during the 19th century. We can see this through three periods of the Brazilian historiography:

1. During the Colonial period (1500’s–1700’s), the era of colonial explorations for gold and settlement for cattle ranching;
2. During the 1800’s, an era of Imperial expeditions, hydraulic and scientific surveys, development expansion, combating droughts, land commoditization, territorial instabilities and slavery/racial politics;⁶
3. Then during the early Republican period and the first half of the 20th century when public health expeditions along with engineering efforts studied how the river could help alleviate Brazil’s most severe problems: drought, poverty and endemic disease.⁷

Section I is divided into three chapters. Chapter 1 discusses the historical importance of the São Francisco River for national identity, with its commemoration of the 500 years of its discovery, in the light of toponym and cartography politics and representation, with material consequences to land grants until mid-19th century. Chapter 2 enunciates the “third bank of the river”, methodological and theoretical threads, and highlights current mobilization of indigenous groups, fishermen, church and environmentalists to fight over government proposals to build

large water projects on the São Francisco River in the light of transformations of the cultural and racial representation, national identity, and power politics in the region. Chapter 3 deconstructs the Federal government's authority over the São Francisco River thanks to the idea of the "river of national unity", in the light of the 19th century scientific and engineering views of nature and race, and the material consequences for land grants and occupation of the São Francisco river banks and islands. By bringing into view the expeditions and land grant system along the São Francisco River basin, I argue that scientific expeditions were instrumental in defining land tenure in late 19th and early 20th century, especially with the destitution of Indian land. I also call attention to prior 19th century cartography—what is known and what remains invisible⁸—in order to introduce important social, racial and environmental dislocations in the region carried out during the 20th century.

Section II highlights the material transformations in the São Francisco River in the light of discourses of "landscape of mourning"⁹ and "imperial nostalgia"¹⁰ after 1945. While Chapter 4 unfolds the process of large dam construction along the São Francisco River, Chapter 5 examines the expansion of rice and sugarcane irrigation, aquaculture and tourism frontiers along the wetlands near the river estuary. Both chapters 4 and 5 are situated in the periods following three critical landmarks in the Brazilian historiography: the end of the World War 2 and the Vargas era in 1946, the 1964 military coup and the 1985 democratic process. I investigate these developments not from the perspective of the technological advances themselves, but from the rhetoric and politics of reorganizing spaces along the river, and the subsequent displacement of peoples and cultures.

Section III invokes stories and representations of the river by communities living along its banks, centering on issues of cultural identity and identification with the river, not as a static entity, but as an intricate web of social and ecological relations that are linked to stories of the African Diaspora, slavery and liberation. Chapters 6, 7 and 8 use intensively ethnographic

material from an extensive fieldwork period among fishing and former rice planter communities living in the *Bairro Vermelho*, the oldest neighborhood of the town of Penedo. Penedo is the oldest town in the Lower São Francisco River, located at the edge of the state of Alagoas. Both chapters 6, 7 and 8 capture the voices of a fishing community in between worlds: local and global, past and future, traditional and modern, river and land, natural flow and regulated flow, wetlands and irrigated fields, “natural” fish and “technological” fish. Chapter 6 highlights the process of the identity-making in the *Bairro Vermelho* and the São Francisco River by local government and compares it with the oral memory of this fishing community, paying special attention to the fisherwoman’s stories. Chapter 7 and 8 examine how the identity of traditional fishing communities from the *Bairro Vermelho* is not fixed on its banks and islands. Those fishing communities are becoming “post-traditional and alternative-moderns” by combining modern practices with culturally established ways of fishing and living, and weaving a discourse of liberation and citizenship from marginalization and oppression.

Section IV highlights the contemporary social network that helped to build the traditional and artisanal identity of the studied fishing community and to campaign for the preservation of the São Francisco River and its wetlands. Chapter 9 examines the role of religious groups and symbols in organizing the “liberation” of *Bairro Vermelho*’s fishermen organization in the 1970s, during the military regime. Chapter 10 illuminates the role scientists have on legitimizing and (in)forming the traditional and artisanal identity since the 1990s. Section IV discusses how artisanal fishermen from Penedo have adopted scientific representations of the wetland and have extended them to the river, to claim traditional water rights and territory thanks to the discourse of environmental justice and human rights.

¹ Folha de São Paulo Especial Edition, 2000, 2001. *Caderno de Economia*

² UC Berkeley professor of Portuguese Candace Slater has been studying the cultural aspects of the environmental history of the Amazon rainforest and the dry northeast of Brazil for two decades.

³ The largest and most famous river of the world, draining the land of 7 South American countries, and occupying an area equivalent to that of Australia or 75% of the USA, with the largest forest in the world.

⁴ For a detailed discussion on the interpretation of early cartographic documents see J. B. Harley, *The New Nature of Maps*, 2001, page 33.

⁵ Euclides da Cunha. *Rebellion in the Backlands*. 1995.

⁶ See Chapter 3 of this dissertation for more details

⁷ For an interesting discussion on the issue of public health, race, primitivism and the wetland system in the São Francisco River during the early 20th century drought, see the original report given by the medical doctors Adolpho Lutz and A. Machado. 1915. *Viajem pelo rio S. Francisco e por alguns dos seus afluentes ente Pirapora e Joazeiro*. Page 5-7.

⁸ For an in depth discussion about cartography politics see J. B. Harley (2001), *The New Nature of Maps*; D. Wood (1992) *The Power of Maps*; and I. Pickles (2004) *A History of Spaces*.

⁹ For a discussion on “landscape of mourning”, see B. Braun *The Intemperate Forest*.

¹⁰ For an anthropological discussion of “imperial nostalgia” see R. Rosaldo, *Culture and Truth*,