John Laudun
AFS 2007
Quebec

# Boats that go on land & water

## Introduction

[1]

In the wake of Hurricanes Katrina and Rita, there ranged a variety of debates and discourses around the nation about the wisdom of rebuilding in the areas struck by the 2005 storms. It makes no sense, many argued, to build a city, especially a modern American city, on land so, well, not land. The same argument has been made before about New Orleans and other parts of Louisiana: Too much risk. Too much water. Too little land.

On the second anniversary of the storms, National Geographic reporting on the current state of things in New Orleans led off its article this way [2]:

> The sinking city faces rising seas and stronger hurricanes, protected only by dwindling wetlands and flawed levees. Yet people are trickling back to the place they call home, rebuilding in harm's way. (Bourne 33; emphases in the original)

Those five adjective-noun pairs — "sinking city," "rising seas" — build to a kind of apocalyptic inevitability that underlines the absurdity — or, alternately, undermines the actuality — of living on, or in, an ambiguous landscape.
[3]

It was, perhaps, inevitable that the residents of Louisiana would come to imagine the relatioship between land and water differently. New Orleans after all was established on a portage point between Bayouk Choupique, today Bayou St. John, and the Mississippi River. The city was

founded, in other words, on land understood as a bridge between two waterways. Much of the state's history is caught up in its need to negotiate on a recurring basis what parts are wet and what are dry. During the colonial period, land grants, which were measured in lengths of river frontage, typically required land holders not only to build roads but also to build and maintain levees.

The colonial authorities were right to worry about levees. The general consensus after Katrina is that the storm itself was not the disaster, the levees breaking is what changed everything for everyone. The Seventeenth Street Canal is now famous. Less well known is "Mister Go," the common nickname for the Mississippi River Gulf Outlet (MRGO), which was dug in 1965 by the Army Core of Engineers through the existing land bridge and barrier islands. MRGO is commonly believed to be the ruin of Saint Bernard Parish. It is also, it should be noted, but one of hundreds of canals, locks, damns, weirs, pumps, drains, and other structures and bodies managed by a wide array of local, super-local, state, and federal agencies.

Closer to home, the Vermilion River that passes through Lafayette actually began through a slow process of coastal erosion, making its way up through the marshes, until, reaching Lafayette, where later a wandering distributary of the Bayou Teche would make the Vermilion into a true, flowing river. The Teche — itself a product of a complex geological history — is now fed by the Bayou Courtableau.

Just a few miles north of Krotz Springs, sitting just a football field's length from the Atchafalaya River, Ralph Castille and his crew of eight men keep watch on the depth of the Bayou Courtableau. The number 17.64 has an almost magical quality for them. 17.64 is the height above sea level of the bayou at a particular point in its course that it is their job to maintain. When the bayou is in flood stage, there are two massive weirs designed to bleed off the excess water, but when the bayou is low, it's Castille's job to crank up one to four 1500HP motors and begin

pouring water into the Courtableau. The water backs the bayou up to Bayou Fusilier, which in turn floods into the Bayou Teche. The Teche feeds the Vermilion River via Bayou Fusilier north of Lafayette and via the Ruth Canal south of the city. Both outlets are sometimes necessary when farmers like Keith Luquette start pumping their fields either to flood for planting rice or for growing crawfish.
[4]

Luquette's farm is one of hundreds that cover the Louisiana prairies, which, interestingly enough, were first imagined in terms of the sea. Standing on some of the small mounds on the edge of the prairie, stands of trees seemed like îles, or islands. Conversely, when a patch of prairie was surrounded by trees, it was dubbed an anse, or cove. Driving across the prairies today, one passes through places like Anse LeJeune, Anse Maigre, Point Blue, and Pointe Claire.
[5]

It is perhaps no wonder then that when Alan Lomax drove across these prairies in search of the country Mardi Gras he imagined that he was in the midsts, or mists, of marshes silvered with fog. In fact, Lomax was, as the sign for Louisiana 13 reveals as it rolls by, on the highway from Eunice to Mamou, driving through fields freshly flooded in preparation for planting rice.

Swamp. Cognitive studies.
[6]

How, then, to go about trying to understand such a mixed-up, mutable landscape as this? More importantly, how does one go about understanding what the residents of the landscape understand? The obvious answer is that we need to turn to the actions of those residents, the things they say and do, in order to begin to understand how it is they structure the raw material of their physical environment into something like a landscape.

The larger project examines a wider swathe of the archeological record, discussing, for example, the few recorded instances where the land and water ship appears in folktales, or, for

example, the variety of legends that always place buried treasure at a tree which is almost always located adjacent to a lake or in a swamp. There are also a number of jokes and a few songs that give us glimpses into the minds of Cajuns and Creoles making their way through the watery world of Louisiana's landscape.

I have included in the handout a version of AT513b that George Reinecke found printed in the pages of Le Meschacébé, a French language weekly of Saint John Parish. This version was printed in 1878 as the last of a series, all in Creole (unlike the rest of the paper), called "Contes Nègres." Previous stories in the series were all African animal stories, much like those later published by Alcée Fortier and Joel Chandler Harris. This version of the tale, Reinecke observes, "combines the theme of the male Cinderella suitor for the princess' hand with three others: the king's insistence on an amphibious ship, the unexpected but deserved help from a disguised supernatural being, and the presence of skillful helpers, each with a special gift, who allow the suitor to comply with the king's increasingly difficult demands" (20).

The audience handout is in English, but I have inserted the French form of "a boat that would go on both land and sea" in italics.

## A Very Short History of Land & Sea Boats

In reality, there are a number of boats that can perform the folkloric feat of going on la terre com on la mer. [7] The oldest boat imagined to be capable of doing so if, of course, the pirogue, sometimes said to be a boat that can "glide on dew." Wood pirogues are still being made in Louisiana, sometimes out of venerable cypress planks and sometimes out of plywood, but there are also pirogues made out of fiberglass and out of aluminum. Pirogues and other wooden water craft have been documented by Malcolm Comeaux and Ray Brassieur.

Pirogues are still used for some hunting and some fishing and of course by naturalists, but

they are not the preferred craft when you need to cover a great deal of territory, when you need to move quickly, and/or when you need to carry a load. [8] In those situations, most Louisiana residents turn to power boats. The classic bateau with an outboard motor is very popular in south Louisiana. (My family is no exception; we own three vehicles: a car, a truck, and a boat.) The bateau, or john boat as it is sometimes known, traverses water as shallow as a foot, if carefully handled, but nothing less. In those instances, however, it is still possible to use an air boat. [9]

Air boats were invented soon after airplanes, it seems, with the first documented craft being built by Alexander Graham Bell in 1905. By the 1930s, home-made air boats were in use throughout Florida and Louisiana. Air boats solve the power-to-weight problem in one way, by having the propeller out of the water, but it took some time before engines became light enough that a sufficiently powerful but also sufficiently light enough engine could be coupled with a propeller in the water, transforming the mid-century "put-put" boat into the late-century mud boat.

The classic mud boat has the engine mounted amidships with a long shaft running above the hull and through the transom. The mud boats I grew up riding in usually used Volkswagen Beetle engines because they were both light and fairly uncomplicated, both factors being a dimension of their being air-cooled. The mud boat got its name for being able to power its way through water so shallow as to be effectively mud. [10] The introduction of the Go Devil engine in the early 1980s, and the innovations brought about by the Provost brothers of Pro-Drive in the last decade, changed the nature of the mud boat considerably, shifting the balance of production from home-made craft to three regional manufacturers.

Both the air boat and the mud boat are part of the current project, but for now this brief history will have to suffice.

The third boat capable of going on la terre com on la mer is the modern crawfish boat. [11] The

particular form that I will be discussing today is known, to those who build it and those who use it, more simply as “the hydraulic boat.” As the demand for crawfish [12] grew through the sixties and seventies, and as rice production alone became less economically sustainable, area rice farmers began to experiment with ways of mechanizing [13] what was still largely a hand and foot operation. [14] That is, crawfishing rice fields was still a matter of a farmer pulling or pushing a pirogue or bateau, and working the traps as he himself stood knee to hip deep in water. (Probably should explain the geology of rice fields here: 4 to 12 inches of top soil on top of a clay pan.)

I should note that the willingness to embrace new technology or to innovate within an extant technological domain is not new to the area or to the industry. [15] As one observer has noted: “Louisiana rice farming gained prominence, and market share, in the post Civil War period precisely because it was mechanized. Where older rice-growing regions in South Carolina and Georgia sought to remain viable, their labor-intensive practices were difficult to continue when workers were no longer enslaved” (ESC: 44-45). I should also note that the shift to rice agriculture seems to have been largely precipitated by an influx of German immigrants from other parts of the U.S. as well as from Europe. They were mostly assimilated by their Cajun neighbors, but there are some interesting ethnic identity issues that deserve a fuller treatment than we have time for here.
[16]

Our experimenting farmers — with names like Zaunbrecher, Frugé, Heinen, Richard, LeJeune, and Frey — tried a a variety of engines, gearings, and forms of power delivery — shafts, belts, chains — in an effort to harness small engines, which operate best at high RPM, to the task of moving a boat slowly through the water. Farmers were modifying standard bateaus in various ways so that they would "crawl" through a rice field/crawfish pond. [17] There seem to have been a number of attempts at various mechanical configurations, almost all of which are only recalled in

terms of their "contraption"-like nature. [18] The arrangement that seems to have eventuated out of all of this experimentation involved mounting a small Briggs and Stratton or Honda engine to a Montgomery Ward tiller transmission on the transom of a boat and then transferring the power, usually with a shaft, to a driving wheel — the cleated wheel seems to have been part of the overall configuration from close to the beginning of the craft's history.
[19]

Part bateau, part paddle wheel, part processing plant, the modern crawfish boat is both amazing to behold as an object and a thing of grace when operated by an experienced crawfisherman. The boat's engine drives a hydraulic pump that turns the great wheel, lifts the wheel boom, turns the boat left and right, and controls the boat's speed. [20] Sitting behind a tray with sorting holes leading to mesh bags, the crawfisherman dances a water-born, cyborg ballet. Man and machine arc in and out along the line of crawfish traps, with each trap in turn being pulled, dumped, sorted, and rebaited just in time to replace the next trap which is in turn pulled, dumped, sorted, and rebaited.

The dance travels along the line of traps until a section of field is completed. [21] The boat then reveals its amphibian nature as the powerful propelling wheel pushes the craft up a field levee until it noses back down into the next section. When a field is complete, the crawfish boat crawls up onto land and motors its way down the road to the next field, rolling both on the back wheel and on wheels tucked into the front of the hull.

## The Makers

Credit for the invention of the hydraulic boat is usually given to Gerard Olinger of Robert's Cove. [22] Olinger defers credit to a local farmer who first had the idea of using hydraulics as the only form of power delivery that would survive being immersed in water. Olinger made his first boats in 1983, and they quickly became the standard by which all others were judged. Over the

next five years, he was joined by a number of makers.

Kurt Venable in Rayne, Mike Richard in Richey, Dale Hughes in Welch, and Jimmy Abshire in Kaplan, along with Olinger, are the five major makers of the hydraulic boat. (There are a few other builders still building boats and a few others who have come and gone, but that's for another time.)

Kurt Venable is central both in terms of his location and in terms of being the most prolific of the makers, assembling something on the order of 40 boats a year. Mike Richard makes about 20 boats a year. Dale Hughes about a dozen. Jimmy Abshire and Jared Olinger about a half dozen each.

## The "Hydraulic Boat"

Each maker has his own "style" of boat, but the basic form of the crawfish boat, since Olinger introduced the front wheels, is fairly well established: the hull has the typical scow bow, flat bottom, square stern, and moderately flared sides of the traditional Louisiana bateau. Indeed, as I have already noted, the first crawfish boats were simply modified versions of the boats most commonly used for inland fishing. However the four-foot wide hulls of the widely available commercial hulls had a tendency to swamp when the boat turned. [23] An immediate adaptation was to raise the sides of the boat near the stern. [I should note that the boat builders and the farmers and operators who are their clients do not use nautical terminology when discussing these craft. There are no sterns, nor transoms, nor keels. There are backs and bottoms.] It was a short-lived modification. Having wearied of reinforcing the commercial hulls which did not hold up well to the weight and thrust of the wheeled drive unit, the boat builders had already begun to build their own hulls, which led to the current hull form which is based on a five-foot wide sheet of aluminum that flares out to the craft's six foot width. (The overall length of the boat has held

constant at fourteen to fifteen feet.)
[24]

At the front of the hull, usually about four feet back, are a pair of wheels — typically the kind used on small utility trailers. On a Venable boat, the wheels are set inside wells in the hull. [25] Olinger places his wheels in a bay, giving the front of his boats a very car-like appearance. Hughes and Richard mount their wheels outside the hull with an axle connecting them running through the interior of the hull, with the axle also acting as a stiffener. Both Venable and Olinger prefer to place decks in their boats, with the supports for the deck stiffening the hull.
[26]

At the back of the hull sits the massive drive unit, an articulated steel arm that raises and lowers, swings left and right, and holds a cleated steel wheel two to three feet in diameter and usually about one foot wide. Like the hulls, almost every facet of the drive units are fabricated "in shop." The boat builders buy the following stock items:

- the forward wheels (as noted above)
- the gasoline engine (usually a Honda or Kohler)[1]
- the battery
- the two rams, or pistons
- the hydraulic system components (pump, motor, valves, and hoses — the reservoir, however, is handmade)

[27]

Everything else is hand-made through careful combining of pieces of stock aluminum and steel materials. In addition to being available in sheets of various thicknesses, widths, lengths, and finishes aluminum and steel are also available in lengths of various shapes — like angles, channels, and beams — and in lengths of various pipe/tubing configurations — described in

[1] Recently, a client of Mike Richard's asked him to place a 10HP diesel engine in a boat.

terms of shape (round or rectangular), thickness, and hardness.
[28]

The two basic parts of the hydraulic crawfish boat are closely denoted by the metals of which they consist: aluminum hulls and steel drive units. Where the two meet is where power gets transfered. This means not only securing the drive unit to the rear, or transom, of the boat, but also making sure that, once secured to the back of the boat, it doesn't literally rip the back of the boat as it pushes. [29] Mike Richard uses two sets of braces, interestingly one aluminum and one steel, welded or bolted to bars welded to the bottom of the boat.

The steel platform stretched across the boat is where everything, except the battery, that has to do with powering and operating the boat, are housed: the engine and hydraulic pump, the oil reservoir, the valves, and the driver's seat. Richard is, in fact, known for the openness of his design.

## Crawfish Boats as a Creative System

[30]

When I first began approaching the boatmakers to ask them about their work, I admit that one of my concerns was how much they would be willing to tell me about their work. My concern was based in part on my experiences with the builder who, it turns out, is most known for his curmudgeonly presentation of self. He was simply the first one I encountered. As I began to work with the other builders, however, I realized that my concern was ill-founded. While each man is fairly certain that he builds the best boat, they all have worked on other's boats, repairing or modifying them as customers' needs, wants, and understandings change. And, it turns out, the farmers who are their customers are not only a source of and feedback, as well as their own ideas (which are variously received by the boatmakers) but also a conduit for information about developments by other builders. (Farmers talk. A lot. E.g., Dale Olinger's "Cove News Network.")

Front wheels were first put on boats by Jerry Olinger in the early nineties. Olinger had the idea when he realized that the reason hulls were wearing out so fast because farmers were driving the boats from field to field. He placed the wheels so they wold not to interfere with levee crossings — the hull needs to slide over the dirt ridges — but to be useful for riding down the road.

Sometimes the solution to one problem actually solves another problem. One of the complaints about the rear wheels is that they create trenches in the fields — they can create one foot or more drops in the bottom of a field. This has largely seemed an intractable (pardon the pun) problem with various solutions proffered — [31] Olinger has gone to two six-inch wide wheels set two feet apart. About three years ago, Kurt Venable began to weld steel bars onto the edges of his wheels' cleats. The problem he was trying to solve was how quickly a piece of three-eighths inch thick piece of steels four inches long can get worn down to a nub, sometimes, depending upon the composition of a farmer's soil, in a single season. It turns out, however, that the reinforced cleats ride a little better on field bottoms and dig a little less. This was, all the builders agree, an unexpected bonus.
[32]

The more academic question I am hoping to address in doing this research, apart from having an answer to the question posed by the National Geographic quotation at the start of this essay, is to understand the nature of creativity, especially understanding creativity not in terms of an individual but in terms of a system, a network of individuals. There seems to be a gap in current research into creativity between human science studies that focus on fields and domains and humanistic studies that focus on the exceptional individual. My hope is that this handful of boatmakers will allow me to understand how creativity can be both dispersed and focused within a field, such that all participants are both part of the system and exceptions to it. My hope, in

short, is to build a boat … of a kind.

## Contact

John Laudun, Department of English, University of Louisiana, Lafayette, LA 70504-4691.

## Illustrations

[1] Title.

[2] *National Geographic quotation.*

[3] Satellite image/map of Louisiana.

[4] Rice field with discharge pipe in foreground.

[5] Mardi Gras.

[6] Pyramid traps and articulated tractor.

[7] Pirogues.

[8] Pierre LeBlanc in a bateau.

[9] Air boat.

[10] A Go-Devil powered boat.

[11] Crawfish boat crossing a rice field levee.

[12] Crawfish in a sorting tray.

[13] Man and woman in a crawfish boat.

[14] Alvin Richard's "One Horse Power" crawfish boat.

[15] Man emptying crawfish "box trap".

[16] Front-wheel drive boat on bank.

[17] Front-wheel drive boat in field.

[18] Modified bateau crawfish boat.

[19] Man driving boat.

[20] Man emptying trap into sorting tray.

[21] Crawfish boat crossing a rice field levee.

[22] An Olinger boat.

[23] A modified early Olinger boat.

[24] One of Mike Richard's boats in front of his shop.

[25] One of Kurt Venables's boats sitting outside his shop.

[26] Rear view of a Richard boat.

[27] Mike Richard hand cutting aluminum gunwale rail.

[28] Two pieces of angle steel welded together and then bolted onto a boat's aluminum transom.

[29] A Richard boat with only the braces and the seat installed.

[30] Richard at work on a boat hull.

[31] Olinger double-wheel drive unit in operation.

[32] Richard welding.