

Motorized Sailing Vessel "Fox"

(M/V "Fox")

Beached on the east bank of Bayou Lafourche  
Larose vicinity  
Lafourche Parish  
Louisiana

HAER No. LA-5

HAER  
LA,  
29-LAR,  
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record  
Southeast Region  
National Park Service  
Department of the Interior  
Atlanta, Georgia 30303

HISTORIC AMERICAN ENGINEERING RECORD

Index to Photographs

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NOTE: Photographs were taken by Michael P. Murphee, photographer, July 18, 1984

- LA-5-1 VIEW SOUTHWEST FROM CORNER OF EAST MAIN AND SHELL STREETS, LOOKING TOWARD BUILDINGS BEHIND WHICH M/V "FOX" LIES. SEE FIGURE 4 ON PAGE 6 OF DATA PAGES FOR MAP.
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Location: Beached on the east bank of Bayou Lafourche,  
Larose, Lafourche Parish, Louisiana

UTM: 15.3275000.753440  
Quad: Larose (7.5 minute)

Date of Construction: Unknown

Present Owner: Harold Aymar  
Larose, Louisiana

Present Use: None

Significance: The M/V Fox represents an antique, possibly unique,  
and heretofore undocumented vessel form, and may  
constitute the sole survivor of an extinct South  
Louisiana vernacular vessel form.

Historian: R. Christopher Goodwin and Associates. Inc.

Edited and  
Transmitted by: Paul Hawke  
Historian  
Southeast Region  
National Park Service  
Atlanta, Georgia 30303

#### GENERAL DESCRIPTION

The M/V Fox is an historic motorized sailing vessel located on the east bank of Bayou Lafourche at Larose in Lafourche Parish, Louisiana (Figures 1, 2, and 3). The vessel is beached on the bank of the bayou within the right-of-way of the Larose Floodgate of the Larose to Golden Meadow hurricane protection project (Figure 4).

It is a double-ended, cat-rigged, cypress motor sailer, that has a flat keel, a rounded bow, and a rounded stern. The hull is carvel planked, and the decks are laid with tongue-and-groove built at the gunwale level. The lower deck is laid directly on the floor timbers. The main cabin extends from the lower deck and rises three feet above the rail. This cabin is windowed on all sides, and it is covered by tongue-and-groove boards. A middle deck forms the floor of the aft cabin, which rises five feet above the rail. The aft cabin was also windowed and roofed with tongue-and-groove boards. An engine mounted at the rear of the main cabin powered the vessel. It had a through-the-keep propeller shaft. A two-part sailing mast, stepped to the keep, is located near the bow of the Fox. This mast, fitted with a yard and boom, supported a gaff rigged sail.

Figures 5 and 6, generated from measurements and from empirical data gathered in the field, depict the Fox as it appeared at the turn of the century. The present condition of the vessel is deteriorated due to the effects of years of natural weathering, wave damage, vandalism, and of damage thought to have been caused by the impact of another vessel. According to Harold Aymar (personal communication, March 1984), "It got rammed with a barge, and it, the boat, put a hole in it....Then it got another lick during a kind of big storm here... just on the top." Natural weathering has resulted in substantial decomposition of the Fox's hull, and in the present rotten condition of the bottom planks (garboard strakes) and of parts of the keel. The "big storm" Aymar referred to apparently caused the collapse of the main cabin roof and of the port bulkhead.

Hull damage apparently was caused by the impact of a barge. The aft deck was broken away in one section. Structural fractures were observed on the aft cabin bulkheads, floor timbers, frames (ribs), and outer planking. During the several months prior to the commencement of the research effort described herein, the vessel's steering wheel was stolen, apparently by someone from outside the Larose area (Tony Ougel, personal communication, March 16, 1984). However, this single act of vandalism was an isolated case, and was regarded with umbrage by the inhabitants of Larose who have resisted any opportunities for salvage or souvenir collection from the Fox because of their high regard for its past and present owners. The present condition of the Fox, then, has resulted from natural causes and from benign neglect.

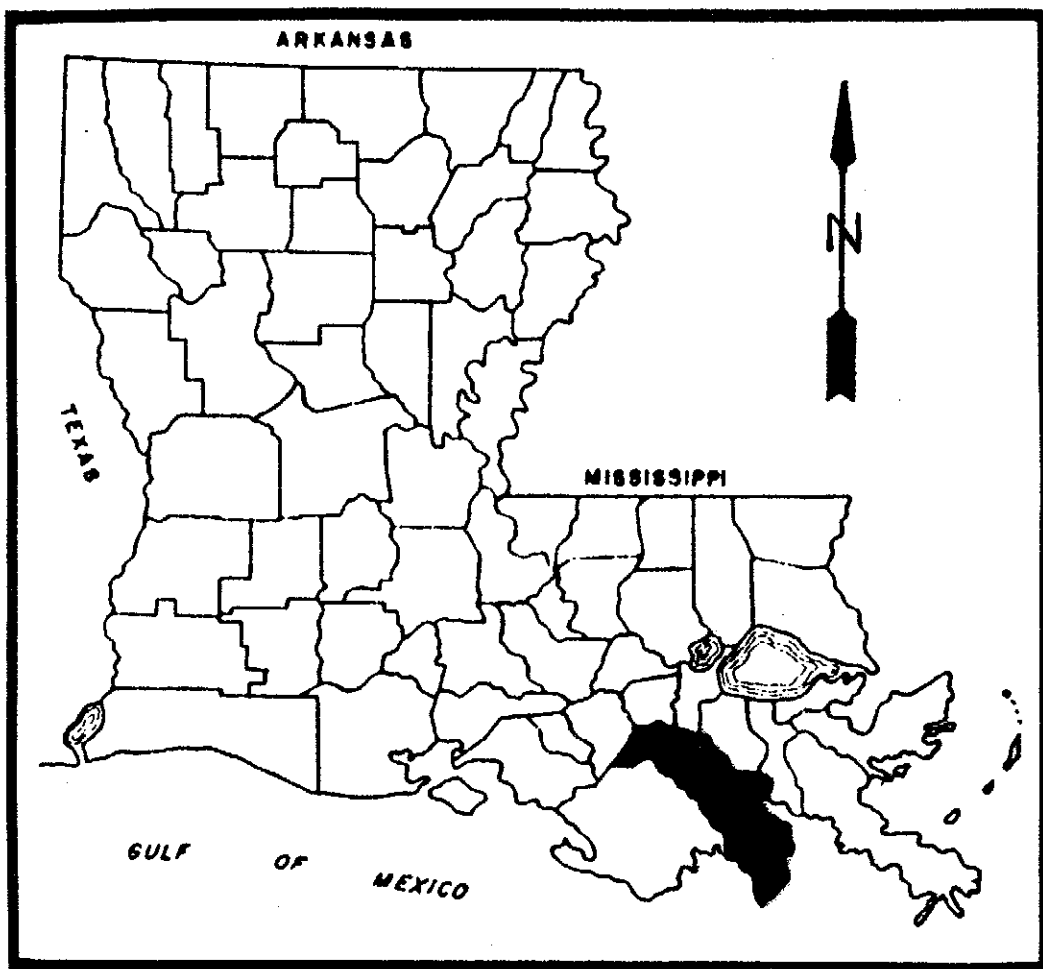


Figure 1. Map of Louisiana showing location of Lafourche Parish.

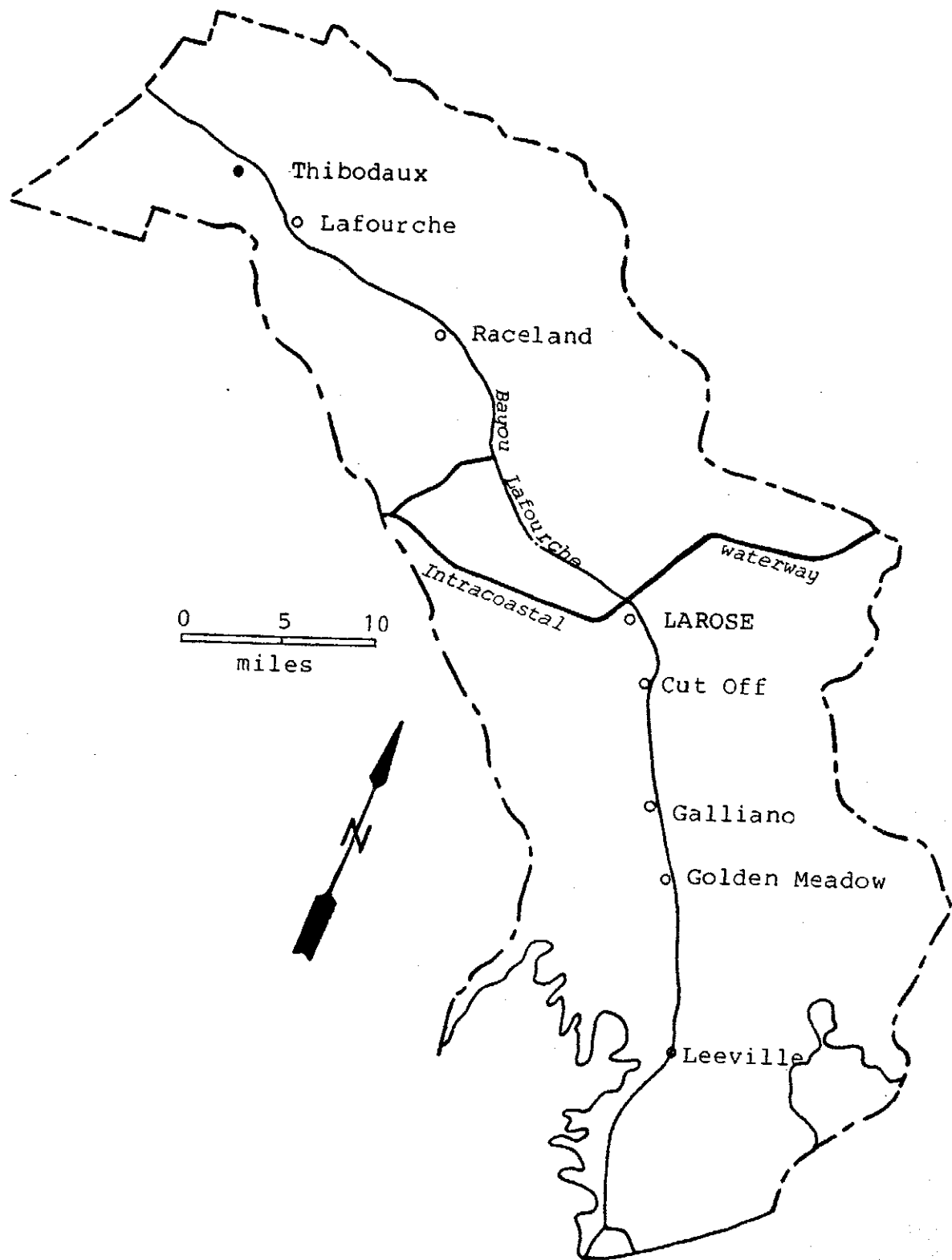


Figure 2. Plan of Lafourche Parish showing location of Larose at the intersection of Bayou Lafourche and the Intracoastal Canal.

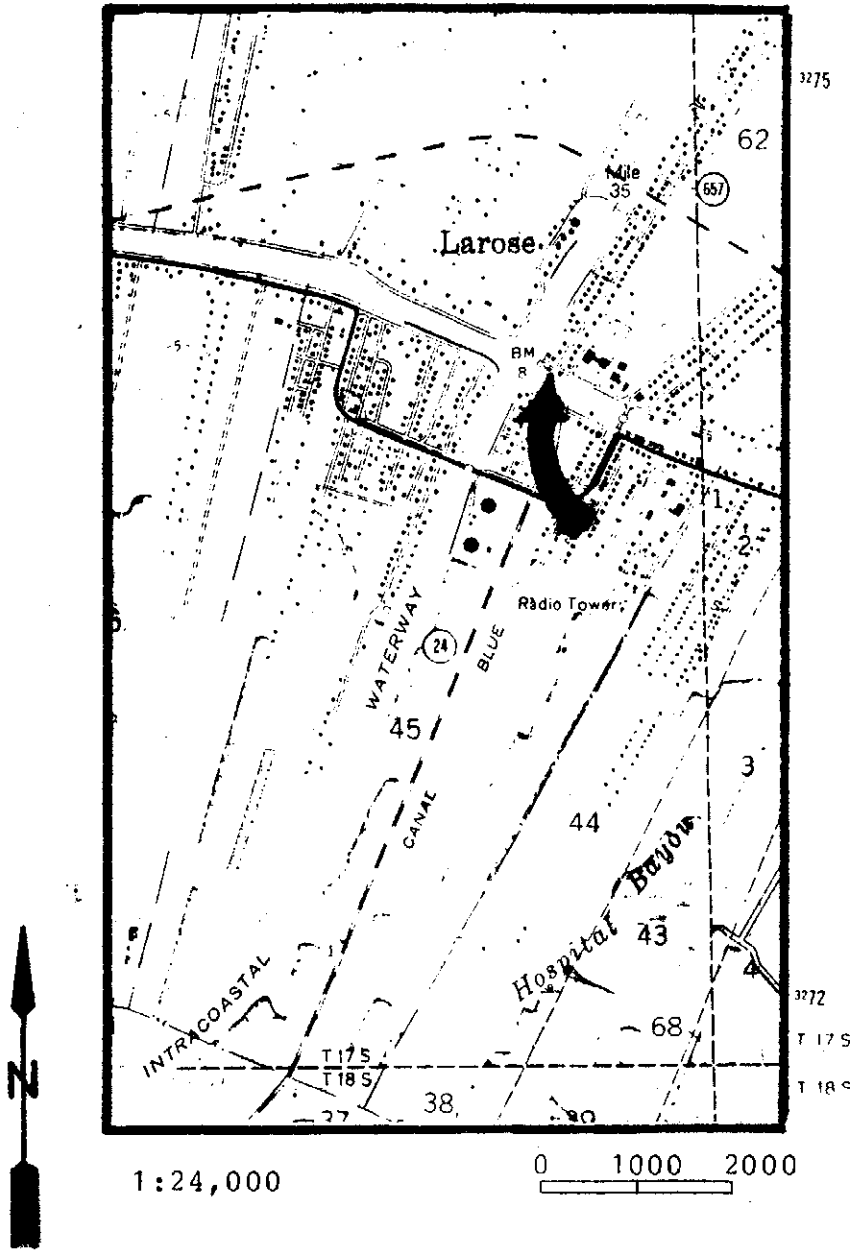


Figure 3. USGS 7.5 minute Larose quadrangle excerpt, showing the location of M/V Fox.

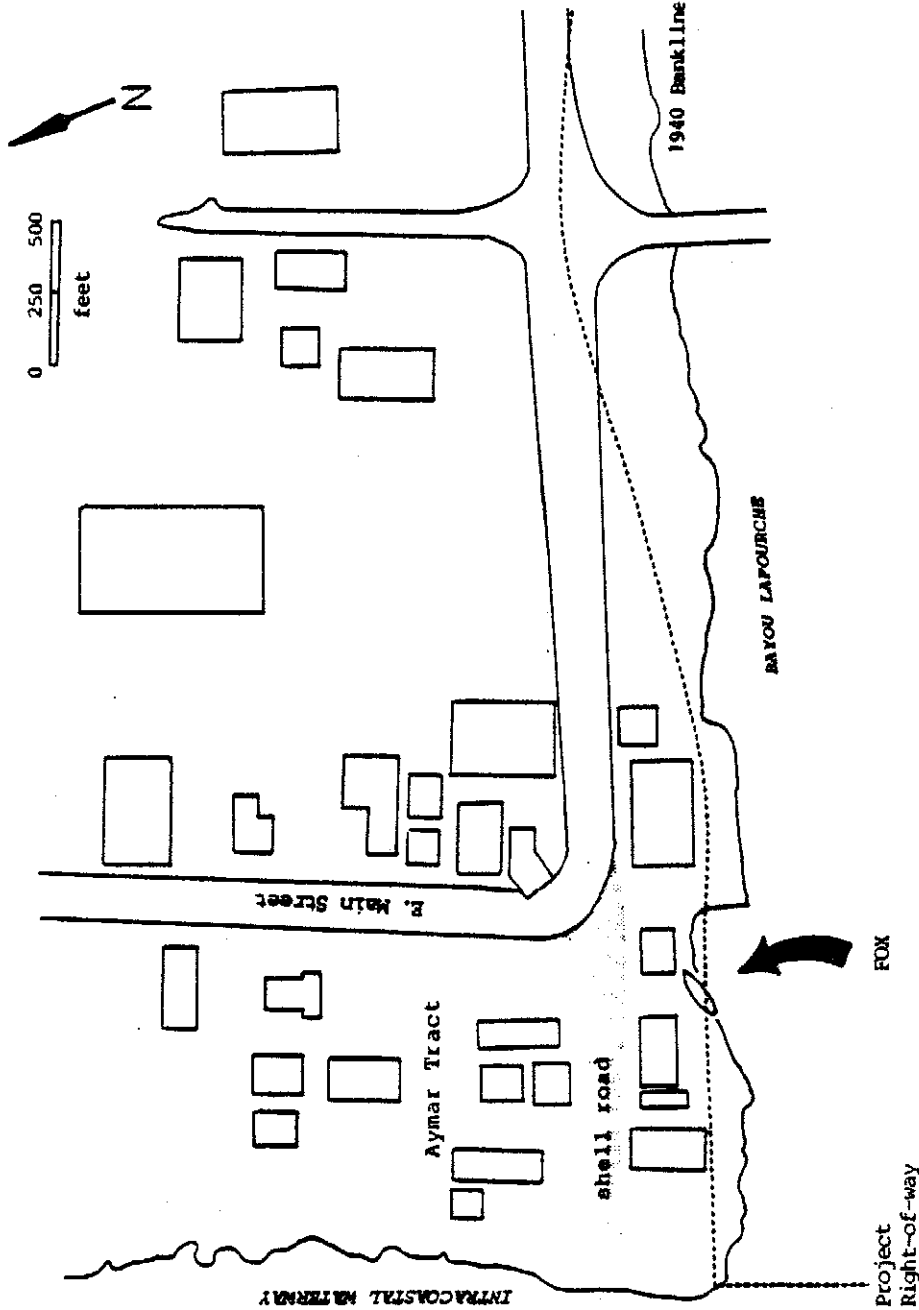


Figure 4. Plan of the project vicinity, showing location of the M/V Fox, the project right-of-way, and of the Aymar tract.



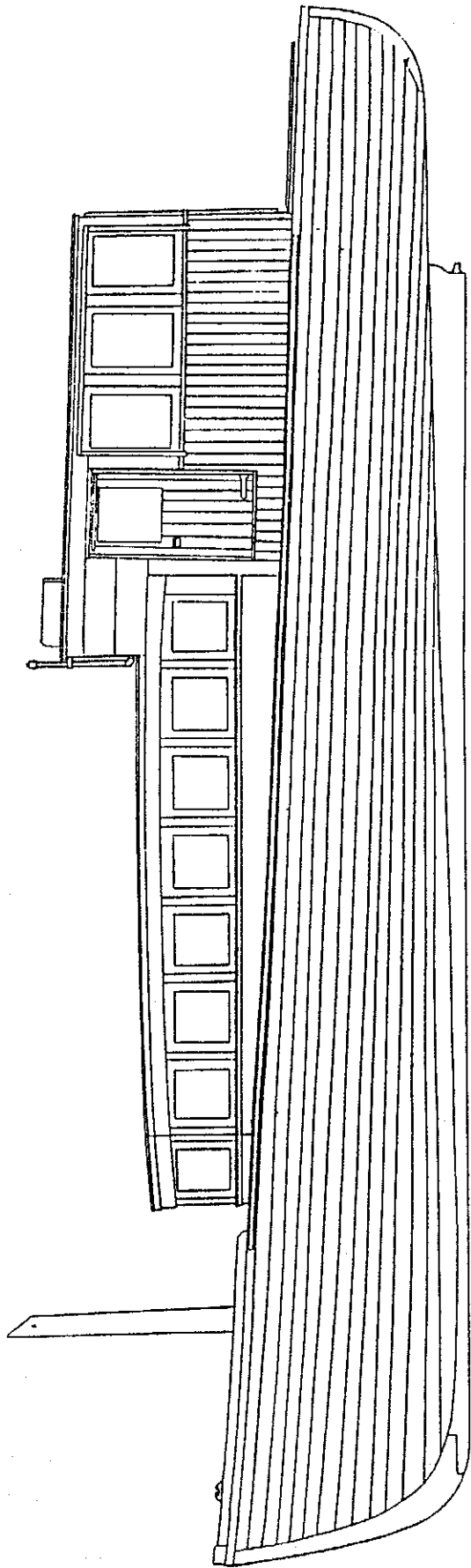


FIGURE 5 PROFILE OF THE MV FOX, SHOWING THE MAIN CABIN, AFT CABIN, LOWER MAST, AND CARVEL PLANKING.

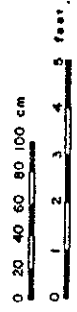
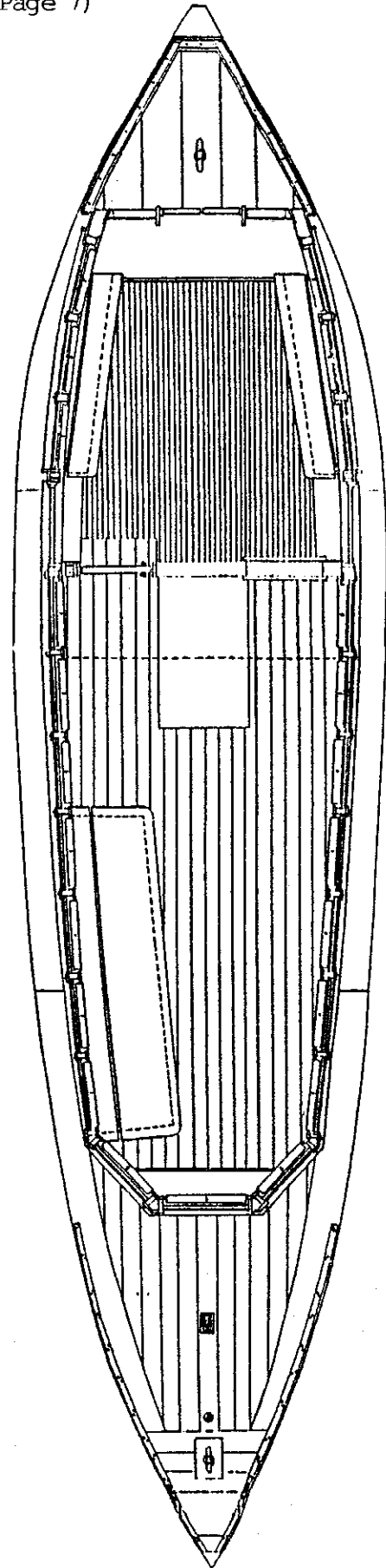


FIGURE 6 DECK PLAN OF THE MV FOX, SHOWING BULKHEADS, BENCHES, AND WINDOWS.



## HISTORY

The Fox was built by an unidentified boatbuilder on Bayou St. John in New Orleans, Louisiana (Harold Aymar, personal communication, March 15 and 22, 1984). It has been established the its builder was not one of the major nineteenth century boatbuilders on Bayou St. John, a conclusion consistent with the yet-to-be-described rare vernacular form of the vessel. The actual date of the vessel's construction is unknown. Jim Knowles of the Smithsonian Institution's Division of Transportation (personal communication, April 6, 1984), suggested a construction date circa the 1870s, although he noted that the vessel's hull design certainly was earlier, and may date from prior to the War Between the States.

Wilkerson Guidry (personal communication, March 21, 1984) believes that the Fox was used by the Aymars forty-five to fifty years before it was beached. Ormand's son, Harold, is vague on the Fox's date of construction, which was well before his birth:

"...that boat wasn't built when the canal was on...They got it afterwards. A couple of years."

The structural data contradicts Harold Aymar in this instance. Wilcliff and Wilkerson Guidry were hired as boys to dig away the bank of Bayou Laforche so that the Fox could be beached. Using their own ages as reference, they were able to establish the date of the beaching with some precision as c. 1934. According to tradition, Ormand Aymar decided he wanted to pull the Fox out of the water "to fit that to go trawl" (Wilcliff Guidry and Louis Cheramie, personal communication, March 21, 1984). He paid Wilcliff and Wilkerson Guidry each a dollar a day:

"Aymar was paying us to take this dirt with a bucket, me and my brother, with a, by hand, you know. Take the dirt and carry it away, so we could bring the boat closer to the bank."

When the bank was excavated sufficiently, Manuel "Man" Orgeron oversaw the landing of the boat; it was pulled ashore either by hand, truck, or winch (Wilcliff Guidry and Louis Cheramie, personal communication, March 21, 1984). During this interview, Wilcliff Guidry was asked:

Q.: "And that boat, once they pulled it up, they never did anything more with it?"

A.: "That's all they did. They pulled it up. It's been there since then."

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Thus, the M/V Fox has been beached at its present location for fully fifty years. It is clearly shown on a 1948 air photograph of the Larose area. As noted previously, the Fox is beached at its home port, adjacent to the residence and machine shop of Ormand Aymar, the owner of Harang Canal from 1897 to 1909.

The use history of the M/V Fox can be reconstructed from oral histories and from structural details of the vessel. It served variously as a passenger, pleasure, cargo carrying, and work boat. Ormand Aymar used the boat regularly for travel on Bayou Lafourche and to journey to New Orleans by way of the Harang Canal, Lake Salvador, and the Harvey Canal, in order to visit his family residing in the city. The Fox was also used to carry people to Charity Hospital in New Orleans, prior to the development of decent roads in the area. Through his canal, Aymar's two-cylinder Fox no doubt provided the fastest emergency ambulance service available to residents of Larose at around the turn of the century.

As a work boat, the Fox was used by the engineer Aymar for transport to survey and construction projects down the bayou where road travel was not feasible. In addition, as will be seen, the Fox was modified so that it could carry heavy cargo, such as machinery and construction materials. The Fox often towed barges carrying a variety of loads too bulky or heavy for the vessel itself. These functional applications of the vessel notwithstanding, it is clear that the Fox also served, in real sense, as a private pleasure boat. Ormand Aymar took pride in this vessel, and maintained it cosmetically as a yacht. Wilcliff Guidry (personal communication, March 21, 1984) remembers the Fox nostalgically: "It was a nice boat in those days, you know. It was something else, that boat. Pretty. Fine cabin on that. Like a pleasure boat." Louis Cheramie (personal communication, March 21, 1984) concurred: "It was just as nice as any boats they had on the bayou at that time.

#### CONSTRUCTION PHASES

As previously noted, the M/V Fox is a cypress-hulled vessel thought to have been constructed originally on Bayou St. John in New Orleans during the last quarter of the nineteenth century. However, vessel morphology and informant interview data demonstrate clearly that the Fox underwent substantial structural change over the years. Indeed, Harold Aymar, the present owner of the Fox and the 66-year-old son of the Fox's original owner, told interviewers: "To tell you the truth, she's been remodelled" (Harold Aymar, personal communication, March 15, 1984). Three other local informants, Louis Cheramie, Wilcliff Guidry, and Wilkerson Guidry, recalled carpentry work on the Fox, and two of these (Cheramie and Wilcliff Guidry) named the carpenter who worked on the remodelling of the Fox as Manuel "Man" Orgeron of Larose, who is now deceased and who was employed by Ormand Aymar.

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Extensive modification of a vessel that changes its structural, mechanical, or aesthetic character is commonly referred to in maritime circles as a "refit." The morphological history of the Fox is one of several refits. Originally built as an open cypress "double-ender" throughout its history, the Fox underwent a series of structural modifications that apparently ended in the early 1930s. The initial reconstruction stage consisted of installing new frames, floor timbers, and a stem post. Superstructure was erected in the form of a main cabin and, later, an aft cabin. During this transformation, the Fox gained official "motor vessel" status with the installation of a "Fox" two-cylinder gasoline engine from which the boat took its name. At that time, the keel was drilled through to accommodate a propeller shaft. The original Fox engine subsequently was replaced with a 1905 "Regal" two-cylinder gasoline engine.

The Fox was also used as a sailboat. It had a two-part mast, the base of which was stepped to the keel. Although the Fox's sailing capabilities probably were limited, two of its upper mast sections and a throated spar of adequate length to have supported a large sail were located in the cypress shed adjacent to the Fox.

The original structural members of the Fox included the keel, frames and planks. The keel forms the backbone of the hull, and the frames and planks are attached to it. The original cypress hull was carvel-built, a system of planking in which the outside planks or "strakes" are laid flush, with the edges meeting. This gives the shell a smooth surface, as opposed to the overlapping planks in the "lap-strake" construction of clinker-built boats. On M/V Fox, the planks were joined end-to-end, using edge or "vertical" scarfs. These planks were secured to the frames with square nails driven from the outside, which were countersunk and the holes filled.

Transverse strength in a wooden boat is supplied by the frames, or "timbers," which act as "stiffeners" that hold the outside planking in shape and maintain the form of the vessel. Because they are integral structural members, frames generally are difficult or impossible to move. Therefore, cracked or bent frames usually are left in place when new ones are laid alongside the damaged members. This was the case with the Fox. The new floor timbers and frames were dramatically larger, indicating that the original frames apparently are under-sized, which may have led to their bending and fracturing. The second generation timbers and frames also were made of cypress, which was treated with creosote. Harold Aymar recalled that:

"That ribs were all right. But he just didn't want that.... the old man renewed all the ribs in it... if you look inside the boat, it is all creosoted inside. At least all the ribs. We put [in] heavy ribs... To tell you the truth, we used to carry a hell of a lot of iron."

(Harold Aymar, personal communication, March 1984)

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The new frames were joined by galvanized bolts, and round nails were used to secure the planking. The floor timbers were notched to fit over the keel, and the keelson was cut to accommodate them (Figure 7).

New deck planking undoubtedly was added, although only the extreme fore deck, aft deck, and part of the aft cabin deck remain today. Once again, the material used was cypress. According to Harold Aymar, "He [Ormand Aymar] was a man who believed n cypress. Her deck was all cypress" (personal communication, March 1984). In addition to the new frames and deck planks, a new steam post was installed. Harold Aymar remembers "a very old stem on that thing. Cypress. Took the old steam out, 'cause it broke" (Harold Aymar, personal communication, March 1984). The result was a double-ender measuring 37.0' ( 1.28 m) in length, with a beam of 9.0 (2.74 m). Aymar noted that, "she draws about three feet of water," which coincides with waterline measurements (Harold Aymar, personal communication, March 1984).

A chronology for the construction of the superstructure can be determined by careful examination of the area where the main and aft cabins join. The main cabin was covered by a system of beams overlain with tongue-and-groove planking which, in turn, was covered with tar paper. The aft cabin is attached to the main cabin in camelback fashion, with a section of the main cabin roof extending into the aft cabin. That section is still present; it also was covered with tar paper, although it lay within the protected aft cabin. Thus, the main cabin demonstrates the first stage of superstructure construction, while the aft cabin illustrates the second (Figures 5 and 6). Referring to the construction of the aft cabin, Harold Aymar stated, "My old man put that... it can be taken off if a man ever wanted to. We built that cabin, he built it out of cypress" (personal communication, March 1984).

One of the finer points of design and carpentry of the main cabin is the treatment of the windows or "ports." The main cabin has a total of 17 rectangular-framed sliding windows and one fixed window in the aft bulkhead. Space was provided within the interior of the bulkheads to accommodate the windows. Windows could be raised during inclement weather and lowered into recessed hideaways with hinged covers (Figure 6). The main cabin was protected from insects by an exterior covering of flyscreen which was held in place over the windows by thin strips of molding.

A combination locker and bench was built on the starboard side of the main cabin. A hinged top on the bench permitted storage beneath the seating area (Figure 6). The exterior surface of the inboard bulkhead of this bench was ornately beveled, exhibiting some of the fine craftsmanship utilized in refitting the Fox. Harold Aymar recalled, "It was nice inside. It's not rough. The old man got a nice way for seats..." (personal communication, March 1984).

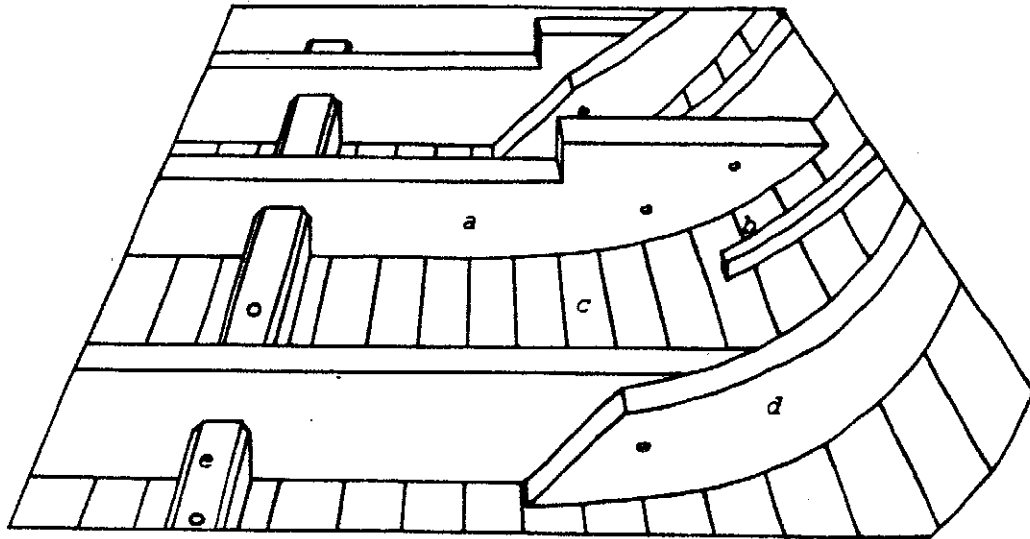


Figure 7. Detail of M/V Fox framing. (a) floor timber;  
(b) old frame (rib); (c) carvel hull planking;  
(d) new frame (rib); (e) keelson and keel.

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The lining of the main cabin consisted of finely carved tongue-and-groove planks which, when joined together, produced a continuous "corduroy" look. Edge scarfs also were used in joining the lining planks. The deck planking in the main cabin was removed, apparently after the Fox was beached. It probably was similar to that of the aft cabin. Thus, planking width for the main cabin deck as show in Figure 6 is hypothetical.

No engine cover remains today in the main cabin. It may have been removed for maintenance and repair of the Regal engine. However, the former presence of an engine cover which protected the passengers from heat and noise, is certain. The six and shape of the engine cover, as shown in Figure 6, is an artist's reconstruction, based on the known size and position of the engine.

Engine to the main cabin was provided by a hinged door located in the starboard half of the aft bulkhead. The main cabin deck extends into the aft cabin area, forming a step-down from the aft cabin deck which is higher than the main cabin deck. The aft cabin, which gives the impression of having been added as an afterthought, incorporates part of the main cabin into its design. The two share a common bulkhead. In order to make way for the propeller shaft and for the engine exhaust line, the aft cabin deck was built above the main deck level. It is supported by untreated cypress beams joined to the new framing timbers.

As in the main cabin, sliding windows in the aft cabin had covered hideaways within port and starboard bulkheads (Figure 6). These windows also were covered with flyscreen. In addition to the six sliding windows, there are six fixed windows in the aft cabin. Two of these are located in the forward "overhanging" portion of the aft cabin; this overhang is indicated by a hatched line in Figure 8. Two fixed windows are located on the port and starboard sides of this overhang. Entrance to the aft cabin is provided by doors on the port and starboard sides, direct aft of the main cabin and ahead of the aft cabin sliding window assemblies. An additional "French window" type door is located at the rear of the aft cabin. It is flanked by the two remaining fixed windows (Figure 6). A seventh fixed window is present between the main and aft cabins.

The aft cabin also has two hinged-top bench lockers similar to that of the main cabin. However, the aft cabin benches are not as wide, and their exterior finish is plain. Actual locker space of all three benches is delineated in Figure 6, using hatched lines.

Another unusual feature of the aft cabin is a small sliding bulkhead which joints the two benches at the rear (Figure 6). By removing this bulkhead, access is gained to the rudder post assembly and to steering linkages. This area no doubt was covered by boards which acted both as a step for the aft doorway and as a bench. Although that bench is missing, its wooden

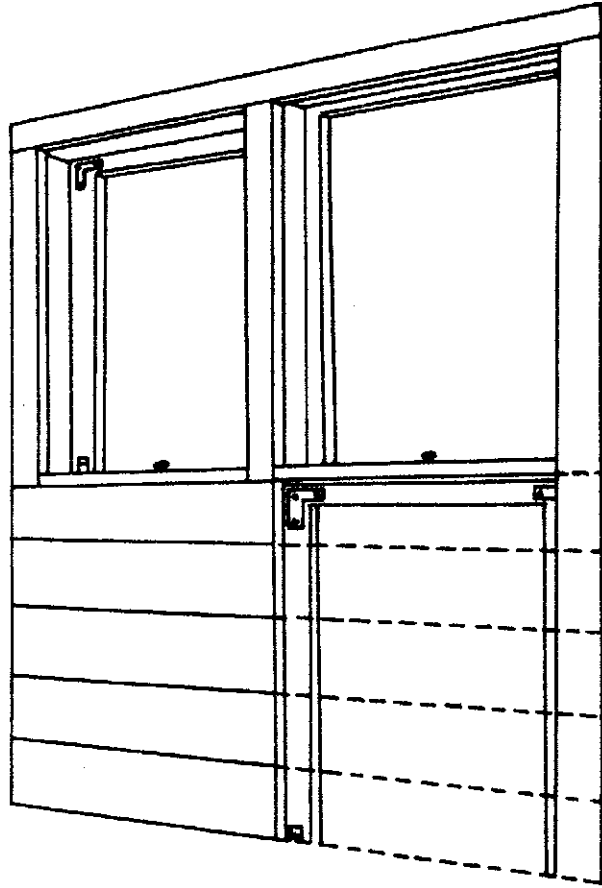


Figure 8. Perspective view of sliding windows in aft cabin of M/V Fox with cutaway view of window in down position.



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supports remain. The aft cabin deck is composed of tongue-and-groove planks three inches wide and running fore-and-aft. The overhead is similar to that of the main cabin, consisting of tongue-and-groove planks supported by beams. It was also covered with tar paper.

The progression of refits visible on the M/V Fox represents a sequence of structural adaptations to accommodate changes in vessel function and a changing technological milieu during the decades surrounding the turn of the nineteenth century. Initial modification by the engineer, Ormand Aymar, anticipated heavy cargo hauling. Further modifications allowed engine installation. An earlier low main cabin gave way to a higher aft cabin, which impeded lower movement of the boom. Although improved engines with higher horsepower ratings were developed, hull design precluded further modernization of the Fox. Felix de Boisblanc, an 81-year-old marine mechanic, described the problems encountered in modernizing double-enders:

"They were streamlined, those double-ended things. They were streamlined, and excellent at low powers. But when people started to put real horses in them, and expected to plane, they couldn't use boats like that. Those things wouldn't, wouldn't go anywhere."  
(Felix de Boisblanc, personal communication, March 1984)

Thus, the construction history of the M/V Fox may be characterized as a dynamic transition from earlier sail-powered vessels to subsequent engine-driven forms. This transitional nature reflects pervasive changes in lifestyle and in technology at the close of the nineteenth century. By the 1930s, M/V Fox already had become an engineering relic, with little practical application.

#### ENGINEERING

The installation of a marine engine in a vessel that was not previously motor driven requires several distinct structural modifications. The changes probably were undertaken prior to construction of the vessel's superstructure. Nevertheless, it is clear that the Regal engine was inserted after the main cabin was completed. Prior to actual engine installation, specialized engine mounts were constructed to accommodate both added weight and torque-related stress on the hull. These mounts took the form of 6x6" creosoted cypress beams that ran fore-and-aft, and which were bolted through the new cypress floor timbers.

In addition to engine mounts, modifications to the hull itself must be made in order to supply cooling water to the engine and to allow exhaust gasses to escape. "Through-hulls" are fittings which are fastened securely through the hull, the edges of which are caulked to prevent leaking. When placed below

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the waterline, through-hulls incorporate on-off valves into their design, so that connecting lines and hoses may be replaced without hauling or dry-docking of the vessel. When used as an intake or cooling water pick-up, a screen usually is attached to the outside of the hull. This prevents grasses, weeds, and assorted flotsam from clogging the valve or from entering the engine. Occasionally, a "sea strainer" is placed in-line between the through-hull and the water pump, to further prevent obstacles from fouling the machinery.

The Regal engine operated on a raw-water cooling system which required through-hull installation. An additional through-hull was cut above the waterline to allow the exhaust fumes to pass through the hull. Other minor modifications, such as the construction of an engine cover, installation of a fuel tank, fuel lines, and fuel fill fittings, were also made. The fuel fill on the Fox can be seen just aft of the forward cleat in Figure 6. The fuel tank was positioned just before the foredeck at a level above that of the engine to assist fuel flow using a gravity feed. In order to facilitate maneuvering, engine controls were placed at the forward-most section of the main cabin, starboard of the steering wheel. The throttle linkage guide tube is shown in Figure 6.

Another major structural change necessary to engine drive involves the joining of the propeller shaft to the engine. In some cases, the propeller shaft is offset from the centerline of the boat; more commonly, the shaft is passed through the keel. Although Harold Aymar, at 66, is too young to remember the actual installation of the M/V Fox's propeller shaft, he apparently is familiar with that operation from his family's oral history:

"My old man was an engineer, construction engineer. He would measure, his measurements were good...All my old man did at that time [was to] bore a hold through the keel. In the back."

(Harold Aymar, personal communication, March 1984)

This was a rather difficult task, and illustrates Ormand Aymar's skill as an engineer.

The nature of modifications to the steering system is less clear. The steering system was comprised of a standard rudder post assembly, with steering cables running down the inside of the starboard bulkhead from the steering station to pulleys or "blocks." These cables were connected to the rudder crosshead, which turned the rudder stock and rudder. It appears to be constructed of the same creosote-treated cypress that was used for much of the refit. No evidence of an earlier rudder assembly remains.

The subsequent replacement of the Fox engine with a two-cycle, two-cylinder Regal engine would have required relatively minor adaptations. Parts of the

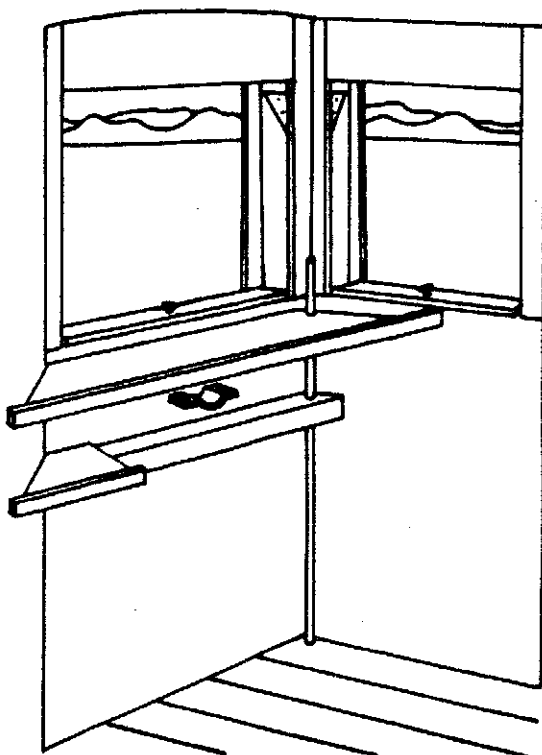


Figure 9. Perspective view of M/V Fox steering station at the forward end of the main cabin, showing the throttle linkage guide tube and lower steering wheel mount.

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cabin or cabins probably were removed to allow installation of the Regal engine. Because the aft cabin deck is raised to allow the exhaust lines and propeller shaft to pass beneath it, the aft cabin post-dates the first installation of an engine. The relative construction sequence of the main cabin and of first engine is unclear. However, similar creosote-treated cypress beams were used for engine mounts and for the previously-described framing modifications. Thus, these construction events probably represent components of a single major refit.

At the time of the M/V Fox's operations, only one other gasoline-powered motor sailer plied the passenger and supply run trade between the Larose area of Bayou Lafourche and New Orleans. Like M/V Fox, that vessel, owned and operated by a Mr. Lefort, utilized a two-cycle, two-cylinder engine. That engine was a Lathrop, rather than a Regal; however, these engines were very much alike. Felix de Boisblanc, an 81-year-old proprietor of a marine engine service in New Orleans, recounted the operation of these engines:

"They used to, they used to just swing, they had an enormous flywheel, very heavy, you know... and they'd just swing it over in position there, and just step on the spoke, and that would come up the top... it was a two cycle job, you know?... and it, uh, had a spark plug, and you'd start 'em off on a squirt can full of gasoline. It had petcocks. They opened up the petcocks, there, and they would release the compression so much they'd be easy to turn over. And... with a little gasoline in the petcock, there, and she'd start, uh, she'd start running, you see. And then you'd switch it on over to the diesel.... It had big, wide rings there, about 5/8ths of an inch wide, and, um, they were a remarkable engine. They didn't have too much power. They started off about 16 horsepower for a two-cylinder job, and went on up to a little bigger size, a 24. But they would run from here to hell! You could hear them at Biloxi. The noise they made was unmistakable. When those, those schooners out of Biloxi, you see they'd trawl with the sail, they wouldn't trawl with the motor, just use the motor to get in and out with, you know? ...and they'd block 'em up to keep 'em from turning over because, uh, you'd imagine, well, the force of water turning against the propeller, it would be less if they let it turn. But it didn't work that way. You'd block 'em u with a piece of wood, you see?...And, uh, keep them from turning and they offer less resistance."

(Felix de Boisblanc, personal communication, March 1984)

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Although no one alive today remembers Ormand Aymar's purchase of the Regal engine, Harold Aymar believes that it was bought from Alex Barker, owner and sole proprietor of Barker Barge Line which operated steamboats out of Lockport (personal communication, March 1984). Barker's "semi-weekly" freight service from New Orleans to Bayou Lafourche travelled the Harvey Canal No. 2, and thus passed Ormand Aymar's home and shop regularly. Barker had a boat-building, repair, and dry dock facility at Lockport, and traded in boat engines and supplies (Bank of Houma, 1910). All early records of Barker Barge Line were lost when that facility was purchased by Halter Marine from Barker's heirs about fifteen years ago (Mr. Dupont, Halter Marine, Lockport, personal communication, March 1984).

M/V FOX AS A SAILING VESSEL

By definition, a motor sailer is any craft provided with dual means of propulsion. This category includes both sailboats of limited mechanical power and motor vessels with small sail areas. The Fox falls into the sail-assisted motor vessel group. However, the hull configuration of the vessel antedates motor propulsion, and clearly demonstrates a functional design for shallow, inland waters. As noted previously, the vessel lacked a deep keel, and drew only three feet of water. This keel design consequently restricted the vessel's close-hauling sailing capabilities. A center board or leeboard design, clearly absent from the Fox, would have obviated this shortcoming. There are several points-of-sail that can be negotiated successfully by shallow draft mono-hulls, especially when running or reaching. The Fox probably was sailed only when favorable winds were present.

Harold Aymar consistently and repeatedly referred to the Fox as a "Bayonne" style vessel. Examination of available historic and archival materials, and interviews and subsequent research at a variety of institutions in the United States, failed to divulge records or descriptions of Bayonne style boats. It may be concluded from this that the Fox hull configuration derives from a poorly-documented historic vernacular form. Both Norman Brouwer of the South Street Seaport Museum in New York (personal communication, April 1984), and Jim Knowles of the Smithsonian Institution's Division of Transportation (personal communication, April 1984) suggested an origin in France, perhaps in the area of Bayonne, on the Cote d'Azur.

Since the vessel was considered a possible vernacular style, a brief folk taxonomy of boat types was compiled during informant interviews of native Cajun French speakers in Larose and along Bayou Lafourche. Informants readily identified the Fox as a "pointu" or "pointu les deux bouts." Although this terminology simply describes a two-pointed hull, an historic vernacular class of vessels known as "pointu" is documented for the Toulon district of the Departements Bouche du Rhone and Var on the Mediterranean Coast of France

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between Nice and Marseilles. According to de Kerchove (1961:594), the "pointu" is a locally given name to:

small boats with a sharp stern used by fishermen and boatmen around the harbor and roadstead.... They are open or half-decked.

Thus, it is feasible, albeit unconfirmed, that the hull design of the Fox derives from a tradition of an Old World origin that had continuity in French Louisiana prior to the advent of engine power. When asked "what kind of boat would you call that [Fox]," Wilkerson Guidry replied: "Bateau pointu les deux bouts 'bout the only thing I know."

Informant interviews revealed that the Fox's sail was stolen; Harold Aymar recalled, "I had a sail and they stole them, broke into my shop and stole them" (personal communication, March 1984). All that remains of the Fox's rigging are the lower mast aboard the Fox; two top mast sections and a boom were stored in a nearby shed. This shed can be seen in a 1912 Aymar Land Company map (Figure 10).

The overall rigging of the masts is the same, although their dimensions are different. Figure 1 shows the top masts and the relative positions of the masthead fittings and of the topping lift blocks. The shorter of the two masts appears to be older. Its hardware is in poor condition, and the treatment of the wood is different from that of the taller mast and boom. The fittings on the taller mast and the boom hardware are similar in condition; the wood of both has been stained or painted a rust-red color.

Although these masts do not appear to have the same age, they are functionally identical. Both have masthead fittings for securing stays or halyard tackle, and both have mid-mast fittings. The taller mast has a topping lift block secured to its mid-mast fitting. This could have been used to support the yard of a lug sail or a gaff sail. Both masts have been cut diagonally and notched to fit on the lower mast aboard the Fox (Figure 1). The shorter mast has three holes drilled through it at its lower end, which presumably were used to lash bolt or clamp it to the mast base. The lower mast has two holes.

According to Harold Aymar, his father, Ormand, installed the lower mast in the Fox, which is stepped to the keel (personal communication, March 1984). The generally poor condition of the garboard strakes and of the floor timbers in the fore peak of the Fox today makes it difficult to ascertain with certainty if the lower mast was installed prior to the initial refit. Nevertheless, the condition of the shorter and seemingly older mast indicates that the lower mast (mast base) and the short mast were part of the Fox's original inventory, and that the taller mast and boom were products of the refit, replicating the original equipment.

The configuration of the masts, boom, and of their fittings implies the use of either a lug sail or gaff sail. Harold Aymar described the rig as "cat-rigged" (personal communication, March 1984. A cat rig is

a rig of one sail, the peculiarity of which consists in the manner in which the sail is hoisted. The mast is stepped very far forward, and a yard considerably longer than the mast runs along it, carrying a sail which is supposed to represent both the main and top-sail of other rigs (Ansted 1972:42).

In addition,

the foot of the sail is of considerable length, requiring a boom extending several feet over the stern. A single stay running from masthead to stemhead, forms the only standing rigging (de Kerchove 1961:132-133).

These descriptions of a cat rig match the position of the mast and of the parts of the rig still extant on the Fox. In Figure 5, the location of the lower mast (mast bases) is shown just behind the bow of the Fox. The position of the topping lift block on the taller mast approximates that of similar fittings used to hoist a gaff or lug sail. Mast head fittings also are present to which a head stay could have been fastened.

Using a gaff-rig model, an estimated sail area of approximately 270-square feet was calculated. Because gaff sails are basically square, sail area can be estimated simply by multiplying the boom length, from throat to outhaul (15 feet), by the mast height, from boom to topping lift (18 feet). Harold Aymar recalled, "We made a sail... a great big sail.... It had a great big boom... they had to have big ropes to hold the sail" (personal communication, March 1984).

When joined to the mast, the boom extended to and above the aft end of the main cabin. However, such a sail configuration would bisect the "overhang" of the aft cabin shown in Figure 5. Placement of the boom high enough up the mast to clear the aft cabin would have reduced the potential sail area by approximately thirty percent (to 190 square feet). This demonstrates that the boat could have been sailed after the main cabin was built, but that it probably was not sailed after the addition of the higher, after cabin.

The use of sail as auxiliary power in favorable conditions apparently was common. Harold Aymar noted that:

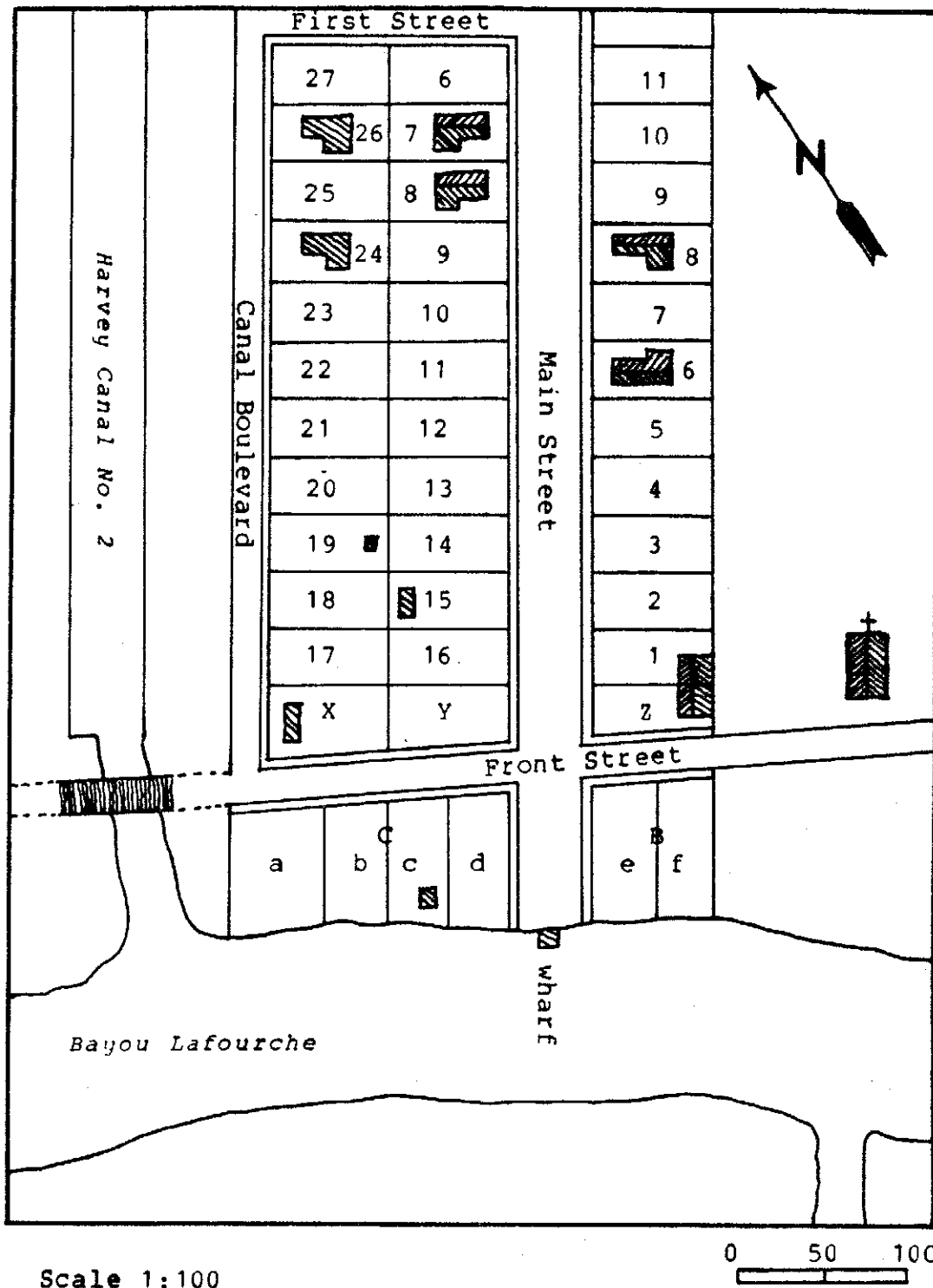


Figure 10. Aymar Land Company subdivision in Larose, redrawn from 1912 plan. (Map Index No. 485, Lafourche Parish Courthouse, Thibodaux, La.).



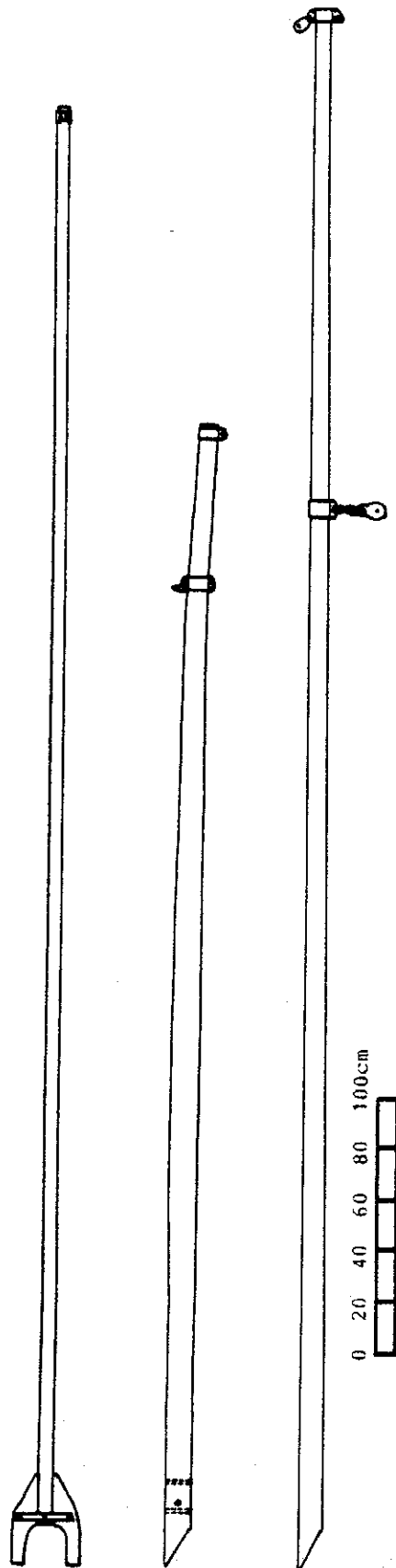


Figure 11. Scale drawing of boom and top mast sections, showing the throated boom, mid-mast and mast head fittings, outhaul, and topping lift block.

"...they used to have lug sails out here, they all had one mast, but it was a lug sail. Hard to sail a course, you see. But it was good. They saved money.  
(personal communications, March 1984)

This characterizes the Fox's use of sail during favorable winds. Clearly, its engine was the major source of propulsion.

#### HISTORIC SETTING

Larose, approximately 70 miles south of Donaldsonville, has been considered a dividing point between upper and lower Lafourche. The natural levees decrease significantly in size at this point, and below Larose backswamps generally occur only one half mile behind the levee. Agriculture along lower Lafourche has remained primarily small scale, and the inhabitants have turned to fishing and to the swamps for their livelihood. Much of the arable land there is used for pasture (Bowie, 1935:38-39).

The development of the Larose area began in 1846, when Octave Harang purchased land which he developed into a sugar plantation. To facilitate transport of sugar and molasses to New Orleans shortly after this land purchase, Harang constructed a small canal, little more than a ditch, that connected Bayou Lafourche and Lake Salvador. This canal entered Bayou Lafourche 67.75 miles below its head at Donaldsonville (Letter from the Secretary of War, 1932:10). The canal had an active length of seven miles (Bank of Houma, 1910:65). It was also used by settlers on lower Bayou Lafourche to transport oranges, rice, and potatoes to New Orleans. In 1875, the Harang Canal was sold to Jules Leblanc.

During the nineteenth century, navigation of Bayou Lafourche was difficult at best. Historic records describe the Bayou as shallow at its head and occasionally dry during the summer and fall (Bowie, 1935:25). Reports to the Chief of Engineers dealing with Bayou Lafourche between 1874 and 1932 noted the presence of snags and bars along the upper Bayou which necessitated clearing by private individuals and by the Corps of Engineers to permit navigation. For eight months out of the year, the bayou was navigable from Donaldsonville to Thibodaux. The large river steamboats which regularly traveled the bayou, the "Henry Tete" and the "Lizzie Hopkins," which had carrying capacities of 700 hogsheads of sugar or more, only could travel during high water. Flatboats and luggers could go the entire length of the bayou during high water, and made daily trips between Lockport and Raceland. Semi-weekly trips were made between Raceland and Cut Off (Report to the Chief of Engineers 1874:766).

By 1886, the bayou had been improved somewhat and the number of trading vessels on the bayou increased. Commerce on the bayou, consisting mostly of

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sugar and molasses, was valued at three million dollars annually. The larger steamboats, such as the "Assumption," "Isabel," "E. W. Fuller, and "Alice LeBlanc," could navigate the bayou from December to August, making two trips per week to Thibodaux and sometimes as far south as Lockport. At no time could steamers pass through the Harang Canal or through the canal at Lockport. However, luggers often made trips to New Orleans carrying goods via these routes (Report to the Chief of Engineers, 1886:1275). Increased volume of trade and clearance for navigation by the Corps of Engineers reflect denser settlement along the bayou during the late nineteenth century.

In 1908, the bayou was navigable its entire length by flatboats and log rafts. However, the damming of the bayou at its head increased siltation on the upper reaches of the bayou. Two small gasoline-powered boats that travelled between New Orleans and Bayou Lafourche by way of Bayou Barataria and of the canals at Lockport and Larose replaced the steamer packets and passenger boats (Report to the Chief of Engineers 1908:428). On the basis of informant interviews, it has been established that these two vessels probably were the Fox and a blunt sterned boat similar to the Fox owned by a Mr. Lefort. The presence of log rafts on the bayou reflects the development of the cypress industry and the growth of the sawmill town of Bowie across from Raceland. By 1914, fourteen registered gas boats and seventeen unregistered gas boats plied the Bayou Lafourche to New Orleans trade route (Report to the Chief of Engineers 1914:2268).

The community which became Larose developed around the intersection of the Harang Canal and Bayou Lafourche. By 1890, over fifty families had settled in the area around Holy Rosary Catholic Church, which was established in 1873. A small school was attended by the local children. In 1890, Dr. Willie Harang induced a pharmacist friend from New Orleans to move to the settlement. Joseph Felicien Larose established a small pharmacy there and obtained permission to open an official postal service shortly thereafter. Until 1896, when the Rural Free Delivery system began operation into the parish, mail was addressed to "Larose."

The Harang Canal was sold in 1897 to Ormand Aymar, who, along with his brother Wilton, operated the waterway at least until its purchase in 1909 by Joseph Harvey of the Harvey Canal, Land and Improvement Company (LATELCO, 1980:58). Aymar was responsible for improvement and dredging of the Harang Canal. He apparently retained some further interest in the canal and maintained it with his dredge until sale of his remaining interest in 1913. The canal was subsequently renamed "Harvey Canal No. 2," using the name of the same family-owned land company which owned and operated the Harvey Canal that connects the Mississippi River at Harvey, opposite of New Orleans to Bayou Barataria, a length of 5-1/3 miles (Bank of Houma, 1910:65). In April 1924, the United States Government purchased the Harvey Canal No. 2, which later was improved to nine feet deep by one hundred feet wide, and which formed part of

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the Intracoastal Waterway (Letter from the Secretary of War, 1932:10). Until 1925, the Intracoastal Waterway was referred to as the "Inter-coastal Waterway" by various proponents of the inland waterway system (Bank of Houma, 1910).

Since the acquisition and development of the Harvey Canal No. 2 as part of the Intracoastal Waterway system, Larose has prospered. Shipyards and related industries, such as the construction of shrimp boats, have developed in the Larose area. Louisiana Highways 1 and 308 were improved by 1930, providing passage for the trucks which replaced boats in transporting truck produce to market. Although as yet unincorporated, Larose today has a civic center, and it annually hosts a French Food Festival in October (1980:58, 59).

Recorded involvement of Ormand Aymar in Larose dates from 1897, the date of his purchase of the Harang Canal. Although Aymar later (1909) sold his interest in the canal to the Harvey Canal, Land and Improvement Company. Aymar continued to have an influential role in the Larose community. A review of succession and conveyance records in the Lafourche Parish Courthouse at Thibodaux, and informant interviews conducted in Larose during March and April 1984, have demonstrated that Aymar played a key role in promoting settlement and development of the Larose area just before and during the first decades of the twentieth century. That role still is appreciated and remembered in Larose. As noted previously, Ormand Aymar was also the owner of the M/V Fox.

Ormand Aymar was the fourth of eight children born to William Henry Aymar and Elizabeth Sparks (Figure 12), the owners of Buena Vista Plantation situated on the west bank of the Mississippi River in St. James Parish. An educated construction engineer, Aymar was married to Caroline Augusta Fuller of New Orleans, whose father was a judge in Orleans Parish. Ormand and Caroline maintained a residence in New Orleans, where Mrs. Aymar and their three children, Harold Cole, Althea Florence, and Rodney Ormand lived. None of the children ever married. Althea and Rodney lived and died in New Orleans, passing away during the early 1980s. Harold is still living in Larose. Rodney Aymar died on July 2, 1954, at his sister Althea's house in New Orleans. His succession was filed in Thibodaux, and a judgement was rendered on November 4, 1955, leaving all real property in possession of Althea and Harold (Probate #5293, Clerk of Court's Office, Thibodaux, Louisiana; personal communication, Mrs. Celina Nichols, Cut Off, Louisiana, March 19, 1984). At this time, Harold Aymar is the owner of the M/V Fox.

William Henry Aymar died in 1900, after purchasing land in Lafourche Parish along Bayou Lafourche. His widow and eight children inherited all property and affects located in Lafourche Parish. The succession of William Henry Aymar was filed in Thibodaux on April 17, 1900 (Lafourche Parish Conveyance Volume 34:172). In 1902, a judgement was rendered on the succession petition, naming Wilton Embry Aymar, eldest son of William H., as lawful agent and

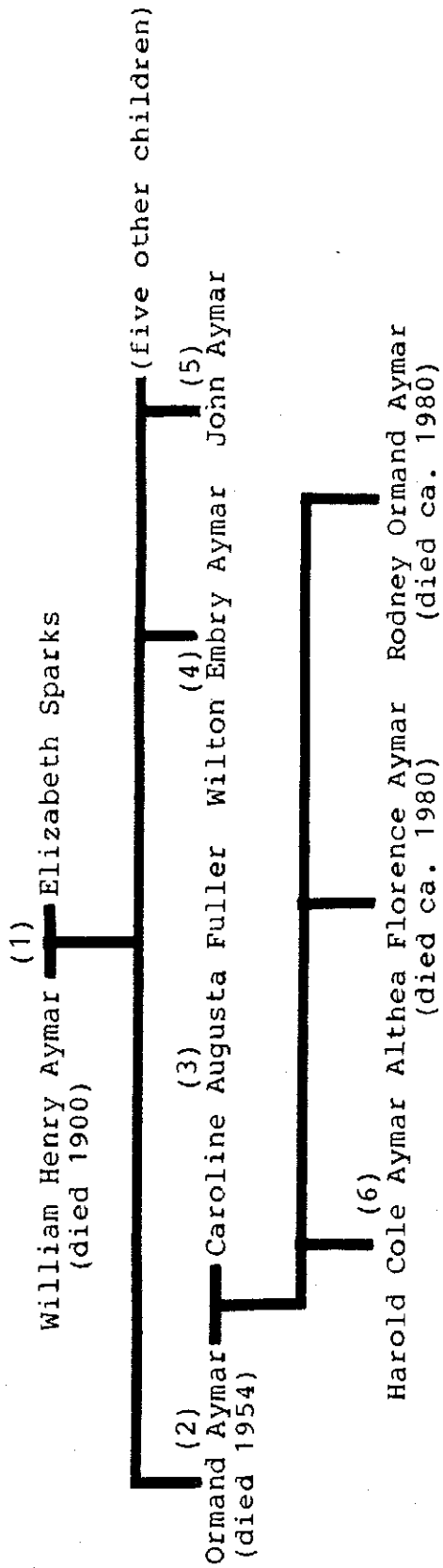


Figure 12. Annotated recent lineage chart of the Aymar family.

1. Owners of Buena Vista Plantation, St. James Parish. They purchased land along Bayou Lafourche during the late nineteenth century.
2. An educated construction engineer, he promoted the settlement and development of Larose. He purchased the Harang Canal in 1897, and later sold it (1909). He was the owner of the Fox, and had it beached in 1934.
3. Daughter of a New Orleans judge.
4. Acted as executor for his father's estate. Became president of the Aymar Land Company. Ran a dredging operation on the Harang Canal with his younger brother, Ormand.
5. Owner of a service station at the corner of East Main Street adjoining the Aymar tract during the period when a hand-crank bridge across Harvey Canal No. 2 was in operation, eg., 1930s.
6. Present owner of the M/V Fox.

attorney for the deceased's estate (Lafourche Parish Conveyance Volume 38:257, Act number 62,030). Wilton E. Aymar became president of the family-owned Aymar Land Company sometime before 1912, at which time the first reference to this company appears in the Lafourche Parish conveyance records. In 1912, a plat for the subdivision of property owned by the Aymar Land Company in the town of Larose was filed in the Parish Courthouse (Figure 10). It is apparent from oral histories that Ormand Aymar played a major role in the Aymar Land Company, and he lived much of the time on and managed the family's property in Larose.

An interview with Ormand's son, Harold, revealed that Ormand and Wilton Aymar ran a dredging operation on Harang Canal that was equipped with a wooden hulled suction dredge. They operated the dredge along the canal, and also on an unidentified point on the south end of Lake Salvador. Live oaks on the point were cut, and shells were dredged there. Such activities were common during the 1920s and 1930s, when prehistoric shell middens were dredged for road material. Many of these prehistoric sites supported live oaks, since they constituted the highest elevations in the swamps and marshes along the coast. Harold recalled that his father worked "for the State for a while" (personal communication, March 16 and March 20, 1984).

In addition to his land and dredging activities, Ormand Aymar was an extremely skilled construction engineer (Louis Cheramie and Wilcliff Guidry, personal communication, March 21, 1984; Wilkerson Guidry, personal communication, March 15, 1984). He was the only person in the area familiar with permitting procedure for construction on the bayou. He took measurements and drew plans for docks, wharves, buildings, and houses in the lower Lafourche area, and filed and obtained requisite permits for local development from the Corps of Engineers. He also obtained permits and registrations for "trawlers down the bayou" from the Coast Guard.

In 1909, a hurricane greatly damaged the Holy Rosary Church and other structures in Larose. According to local informants (Louis Cheramie, Wilkerson Guidry, and Earl Cantrelle, personal communication, March 21, 1984), a dam was built across the canal after a crevasse occurred in 1909 or 1910. High water in 1912 also caused flood damage to structures along the bayou. In 1913, Ormand Aymar sold his remaining interest in the Harvey No. 2 Canal, and then began selling lots for the development of the town of Larose (LATELCO 1980: 57-58). Nevertheless, in 1916 Ormand Aymar was the owner of record of lots C and 'D in Square C, where the M/V Fox is now located (Figure 10). These lots are listed as part of the real estate described in Aymar's succession. Although no specific reference is made to any property besides real estate in the succession of Ormand Aymar, lots C and D were transferred to Ormand Aymar's heirs "together with all... advantages thereinto belonging or in any wise appertaining..." (Petition and Judgment on Succession of Ormand R. Aymar and Caroline Fuller, Seventh District Court for the Parish of Lafourche, Number 5293, filed November 4, 1955).

WATER TRANSPORTATION, SETTLEMENT, AND COMMERCE ON HISTORIC BAYOU LAFOURCHE

The preceding discussion of the historic setting of the M/V Fox has elucidated the major role played by the development of the Harang/Harvey No. 2 Canal in the settlement and growth of Larose in particular, and of the lower Lafourche in general. In addition, the role of the Fox's owner, Ormand Aymar, in that development process has been addressed. This data indicates that the vessel itself, its historic context, and its history of ownership may relate specifically to several themes identified as significant in Louisiana's Comprehensive Archeological Plan (Smith et al., 1983). As defined by that plan, the Fox is located within Management Unit 5 (MU5), which comprises the southeastern portion of the State. Historic themes with potential relevance to the Fox are: flatboats and keelboats in the westward migration; the towing industry, tugs and barges; and, historic colonization of Louisiana (Smith et al., 1983). Because the Fox is a rivercraft, those aspects of these themes that relate to the vessel have waterborne transportation and commerce in common.

The 19th century was a period of booming westward expansion. Levels of production and demand for manufactured and agricultural products warranted the development of inexpensive and direct access to markets located both on the North American continent and overseas. Overland transportation was difficult and time-intensive prior to the construction of long distance railroads and of improved highways. Water transport provided the most practical means of getting the surplus to market. Because of the abundance of natural waterways, early in the 19th century, Americans began to construct canals to connect these avenues of transportation.

Construction of major canals in the eastern United States began during the first quarter of the nineteenth century. One of the most notable was the Erie Canal, begun in 1817 and completed in 1925, which connected the Great Lakes with the Hudson River and thus with the Atlantic Ocean. The C & O Canal, designed by George Washington and completed in 1831, functioned on a smaller regional scale. The C & O Canal provided access from the Washington, D. C., area along the Potomac River to western Maryland, where overland routes through the Allegheny Mountains were reached. Both canals exemplify progressive strides made in commerce and communication which were vital to the developing nation. The canal building era reached a peak by the mid-nineteenth century on the east coast, when railroads began to replace the canals by providing a faster mode of travel.

In South Louisiana, virtually all historic exploration and settlement was accomplished, using waterborne transportation. This was facilitated by the many rivers and bayous of the region, and it was required by the impenetrability of vast intervening wetland reaches using any other mode of transport.. During the 19th century, canals were developed in South Louisiana

to shorten travel times for the transport of goods to market. Canal construction in this region most frequently took the form of straightening or widening small waterways, or of connecting bayous and river. As noted previously, Harang Canal, later named Harvey Canal No. 2, was constructed shortly after 1846 and provided access to Bayou Lafourche from New Orleans via Lake Salvador and Bayou Barataria. The route of the M/V Fox also included what is now called the Harvey Canal No. 1, which was originally dug ca. 1840 (Swanson, 1975:89).

Prior to the construction of good roads and to the completion of rail systems in south Louisiana, settlement and transportation focused on, and utilized, the water ways as a means of livelihood and communication. Boats played an integral part in daily life, and boat traditions in south Louisiana remain strong even today. Large boats brought goods from the port of New Orleans to settlers upriver and along the bayous, and transported timber, furs, fish, vegetables and other goods to the market in New Orleans.

Types and categories of boats evolved locally, based on their specialized uses. Sails, oars, poles, and cordelles all were common means of propulsion. Cordelles were towlines, several hundred feet long, which were attached to the mast of a boat. The crew would carry these, walking the shoreline and pulling the boat behind them. A bridle line was attached to the bow of the boat to prevent the boat from pivoting around the mast, and to steady the boat against wind and currents when the rudder could be used. It would take twenty to forty men to cordelle a large boat, and sometimes mules were used a la cordelle, where the banks were stable and clear. When obstacles on the shore prevented walking the boat, the lines would be secured beyond the obstacle, and the crew would pull the boat by drawing in the lines. This maneuver was called "warping" (Haite, 1964:30-33; Leaky, 1931:46-47).

In general, Louisiana boat styles resisted change until the advent of steam power in the 19th century and of gasoline at the end of that century. Small boats, whether propelled by hand, sail, steam-driven after 1830, or gasoline-powered after 1900, carried farm products to market, and brought tools, supplies, and luxury items in return. Floating stores, or trading boats, continued to cruise the rivers and bayous into the 20th century, stopping at small towns and planters' wharves to trade or barter goods. Small boats ferried people and goods across, up and down the bayous, and towed barges laden with freight.

Changing modes of river travel and cargo transport on Bayou Lafourche are well-documented in several annual reports to the Chief of Engineers. In 1874, R. B. Falfore wrote that:



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"There were but two river steamboats regularly engaged during the past year in the navigation of the bayou, viz. The Henry Tete, with a carrying capacity of 1,000 hogsheads of sugar, and the Lizzie Hopkins, with capacity for 700. At high water the bayou is navigable for these boats. For about eight months in the year it is navigable for them to Thibodeauxville; for the remaining four months navigation for this class of boats is suspended by bars, snags, the luggers being obliged to lower sails and cordelle. From Raceland a line of flat-boats make daily trips to Lockport, seven and a half miles below, and semi-weekly trips to the cut-off, Thibodeauxville to Donaldsonville, during the low-water season (which usually lasts from August to December), 16 flat-boats are engaged in the carrying trade, and it is reported that they frequently obliged to unload to get over the bars" (Report to the Chief of Engineers, 1874:766).

In 1866, all increase in the number of vessels and in the amount of cargo was demonstrated clearly in Major Heuer's report on Bayou Lafourche:

"The commerce of Bayou La Fourche has been greatly benefited, the number of vessels having steadily increased as the obstructions were removed. Before any work of improvement the bayou was obstructed with snags, logs, and wrecks, from its head at Donaldsonville to a point about 22 miles below Lockport, that during the low-water season flat-boats and luggers drawing about 2 feet were the only kinds of vessels able to navigate. In some places, especially between Raceland and Lockport, a distance of 7 1/2 miles, even this was difficult, the luggers having to lower sail and cordelle. But since the removal of obstructions flat-boats and sailing vessels of even greater draught have passed up and down without difficulty. During eight months of the year, when the water is high, the bayou is navigable for large-size steamboats" (Report to the Chief of Engineers, 1886:1266).

By 1908, river transport had decreased:

"The commerce of this bayou is carried principally by two small gasoline boats that ply between New Orleans and points along the Bayou. These boats reach New Orleans by way of Barataria Canal" (Report to the Chief of Engineers, 1908:420).

One of these vessels was the M/V Fox.

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The earliest cargo carriers were large dugout pirogues, adapted from the boats of Native Americans. Many were carved from a single tree fifteen to thirty feet long, with beams ranging from three to thirty feet (Knipmeyer, 1956:151-152). In addition, Leaky (1931:42) has described a common modification of this great pirogue type. Instead of single log construction, the vessel was widened by the insertion of a broad flat board that created a wider beam. The great cargo pirogues were common on the Mississippi River and on important bayous. By 1800, they were replaced by flatboats, barges, and keelboats, and finally by steamboats after 1830 (Knipmeyer, 1956:152-153).

Flatboats varied in size from twenty to sixty feet in length. Hull construction consisted of large square timbers of hard wood, drawing a foot to two-and-a-half feet of water when fully laden. Cabins were constructed on the deck, with access to the roof as another deck. Flatboats were guided by oars on the sides and stern, and steered from the bow with a short oar. Flatboats were used only for downstream transportation, and were sold downriver and dismantled for lumber (Leaky, 1931:43). Flatboats primarily carried freight, rather than passengers.

The barge was a larger, two-masted boat with accommodations for passengers. It was fitted with a covered cargo area over much of its length, and had a carrying capacity from 60 to 100 tons. A cabin area, usually about six by eight feet, served as quarters for sleeping (Leaky, 1931:45). These boats sometimes were pointed at both bow and stern, or had a pointed bow and blunt stern.

Keelboats were long, narrow boats with a shallow draft (Durant, 1953:126). They averaged sixty to seventy feet in length, with a fifteen to eighteen foot beam. The boat was pointed at both ends, and was fitted with a keel extending the length of the bottom of the boat to enable it to absorb the shock of contact with submerged obstructions. A cargo box, some four to five feet above the deck, covered the body of the boat except for decked areas at the bow and stern. Narrow footways about fifteen inches wide ran around the gunwales, providing walkways for the crew (Durant, 1953:126; Leaky, 1931:46). The boat was rowed, poled, or sail-assisted, using a square sail rigged to a mast in the bow of the boat. They could carry between fifteen and fifty tons of cargo, but seldom more than thirty (Hailes, 1969:31). Many keelboats were made in Pittsburgh and later in Louisville. The journey from Pittsburgh to New Orleans took about two months; the return trip took four months (Durant, 1953:126).

Two other boat types served as cargo carriers on large rivers and bayous. Smaller versions of these boats were used on the smaller streams and bayous. The bateau was a wide, flat-bottomed, keelless boat, with pointed bow and stern. It was propelled by oars, using a shorter oar as a rudder (Leaky, 1931:42). The term bateau was used early in settlement of the Mississippi

Motorized Sailing Vessel "Fox"

(M/V "Fox")

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Valley, and was adopted by English speakers during the flatboat period beginning about 1800. A similar double-ended style built by early French settlers in Louisiana was called bateau plat, or flatboat. Another boat style with blunted bow and stern was termed radeau. During the last part of the 18th century, large double-ended flatboats, forerunners of the barge described above, were called "Skiffs" (Knipmeyer, 1956). Both bateau and skiff (esquiff) have come to have specialized meaning in French South Louisiana that differ from the 18th and 19th century definitions. Both terms designate small craft, under twenty feet in length, that are used on the inland waterways primarily for fishing and ferrying. Neither of these types has both pointed bow and stern; rather, the modern-day bateau is a narrow craft with blunted prow and stern.

As noted in the previous sections of this report describing the nature and configuration of the Fox, none of the aforementioned vessel classifications accurately describes that boat. Its double-ended hull shape resembles that of the much larger cargo carrying keelboats that plied the nation's riverine trade during the 18th and 19th centuries. However, the keel of the Fox does not extend its entire length (Figure 5). Furthermore, in the Fox the keel functions as the key framing member, while in a true keel boat the large external keel acts as a false keel which extends the structural keel as a protective device against submerged objects and grounding. Again, the Fox is structurally unlike all of the other documented vessel types recorded for south Louisiana, although its functions are similar.

It is the functions of the M/V Fox, its routes, and the dates of its use, then, that relate most clearly to significant themes in the history of Louisiana (Smith et al., 1983). As discussed earlier, the Fox functioned both as a passenger and cargo carrying vessel shortly after a direct navigation route between Bayou Lafourche and New Orleans was opened. This period of use coincided with the intensive settlement and economic development specifically of Larose and of lower Lafourche in general. It did so at a time when transportation technology was undergoing rapid change in response to the diffusion of industrial progress to the wetlands frontier of bayou Louisiana, prior to the advent of highway access to the area. In fact, public highways in Louisiana were maintained locally until 1908, when the first gravel highways were constructed (McGinty, 195:263). This system of gravel roads spread across the State as automobile use increased. The Federal Aid Road Act, passed by Congress in 1916, was followed by the Federal Highway Act of 1921. The Louisiana Highway Commission, established in 1921, designated that the Southern National Highway, which connected Los Angeles, California, and St. Augustine, Florida, would cross Louisiana using Highway 2. This route was later designated U. S. Highway 90. In 1932, the Louisiana Highway Commission reported that U. S. Highway 90 was paved across the State (Conrad, 1979:30-36), just two years before the Fox was beached for the last time.

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