NPS Form 10-900
(January 1992)
Wisconsin Word Processing Format (Approved 1/92)

OMB No. 10024-0018

1044

United States Department of Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name "Daniel Lyons" Shipwreck
other names/site number N/A

2. Location

street & number	East of Stoney Creek outlet, 4 miles offshore					N/A	**not for publication**	
city or town	Lake Michigan					X	**vicinity**	
state	Wisconsin	**code**	WI	**county**	Kewaunee	**code**	061	**zip code**	54201

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets _ does not meet the National Register criteria. I recommend that this property be considered significant _ nationally X statewide _locally. (_ See continuation sheet for additional comments.)

James Draeger — 8/17/07

Signature of certifying official/Title — Date

Deputy State Historic Preservation Officer-WI

State or Federal agency and bureau

In my opinion, the property _ meets _ does not meet the National Register criteria.
(_ See continuation sheet for additional comments.)

Signature of commenting official/Title — Date

State or Federal agency and bureau

"Daniel Lyons" Shipwreck	Kewaunee County	Wisconsin
Name of Property	County and State	

4. National Park Service Certification

I hereby certify that the property is:

✓ entered in the National Register.
___ See continuation sheet.
__ determined eligible for the National Register.
___ See continuation sheet.
__ determined not eligible for the National Register.
___ See continuation sheet.
__ removed from the National Register.
__ other, (explain:)

Edson H. Beall — 10.3.07

for

Signature of the Keeper — Date of Action

5. Classification

Ownership of Property (check as many boxes as as apply)

- private
- public-local
- X public-State
- public-Federal

Category of Property (Check only one box)

- building(s)
- district
- structure
- X site
- object

Number of Resources within Property (Do not include previously listed resources in the count)

contributing	noncontributing	
		buildings
1		sites
		structures
		objects
1	0	total

Name of related multiple property listing:
(Enter "N/A" if property not part of a multiple property listing.
Great Lakes Shipwrecks of Wisconsin

Number of contributing resources is previously listed in the National Register
0

6. Function or Use

Historic Functions
TRANSPORTATION / Water Related

Current Functions
VACANT / Not in use

7. Description

Architectural Classification
n/a
OTHER – Three–masted canal schooner

Materials

Foundation	N/A
walls	N/A
roof	N/A
other	N/A

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for the National Register listing.)

_ A Property is associated with events that have made a significant contribution to the broad patterns of our history.

_ B Property is associated with the lives of persons significant in our past.

_ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

X D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

_ A owned by a religious institution or used for religious purposes.

_ B removed from its original location.

_ C a birthplace or grave.

_ D a cemetery.

_ E a reconstructed building, object, or structure.

_ F a commemorative property.

_ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Archaeology / Historic, non-aboriginal
Maritime History

Period of Significance

1873-1878

Significant Dates

1873

Significant Person
(Complete if Criterion B is marked)

N/A

Cultural Affiliation

Euro-American

Architect/Builder

Goble, George

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographic References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous Documentation on File (National Park Service):
- _ preliminary determination of individual listing (36 CFR 67) has been requested
- _ previously listed in the National Register
- _ previously determined eligible by the National Register
- _ designated a National Historic landmark
- _ recorded by Historic American Buildings Survey #
- _ recorded by Historic American Engineering Record #

Primary location of additional data:
- X State Historic Preservation Office
- _ Other State Agency
- _ Federal Agency
- _ Local government
- _ University
- Other

Name of repository:

10. Geographical Data

Acreage of Property less than one acre

UTM References (Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	16	0476601	4946411
2			
3			
4			

☐ See Continuation Sheet

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet)

11. Form Prepared By

name/title	Tamara Thomsen, Keith Meverden				
organization	Wisconsin Historical Society			**date**	10/24/06
street & number	816 State Street			**telephone**	608.221.5909
city or town	Madison	**state**	WI	**zip code**	53706

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Owner

Complete this item at the request of SHPO or FPO.)

name/title	Bureau of Facilities and Lands				
organization	Wisconsin Department of Natural Resources			**date**	10/24/06
street&number	P.O. Box 7921			**telephone**	608.267.2764
city or town	Madison	**state**	WI	**zip code**	53707

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects, (1024-0018), Washington, DC 20503.

Summary
Located 4 miles off Stoney Creek's outlet into Lake Michigan, 9 miles northeast of Algoma, Wisconsin, the *Daniel Lyons* lies in 110 feet of water, somewhat broken up, but with nearly all hull structure and rigging represented. Built in Oswego, New York, in 1873 by the famous shipwright George Goble of the Goble and MacFarlane Shipyard, she was the first three-masted canal schooner built in Oswego. *Daniel Lyons* became the yard's signature ship and the blueprint for all other canal schooners built by Goble. Canallers were a unique vessel type developed on the Great Lakes, designed to transit the Welland Canal locks while carrying the maximum amount of cargo through the canal locks with only inches to spare. Grain was transported from ports on western Lake Michigan, collected from the newly settled farmlands of the Midwest, to eastern ports on Lakes Erie and Ontario (largely the cities of Buffalo, New York, Oswego, New York and Kingston, Ontario). Vessels returning to Lake Michigan were often loaded with coal, used for heating Midwestern cities and powering factories. The *Daniel Lyons* provides historians and archaeologists the unique opportunity to study construction techniques on Great Lakes canal schooners and the grain trade. The *Daniel Lyons* site has yielded significant information on canal schooner construction and has the potential to yield further information.

Site Description and Investigation
Despite having a collapsed hull, the *Daniel Lyons* site represents a nearly complete Great Lake's canal schooner. The collapsed hull exposes many construction details not visible on more intact vessels. The *Daniel Lyons* lies in 110 feet of water on the lakebed at a heading of 305 degrees. Both hull sides have collapsed to port, and the vessel's stern is scattered off the wreck's starboard quarter. The centerboard trunk remains intact and standing. The centerboard chain runs from the centerboard inside the trunk to the centerboard winch that lies near the trunk's port side. Both stem and stern posts are intact with deadwood. Much of the standing and running rigging is present, including masts, topmasts, gaffs, booms, and wire rope – all strewn about the wreck site.

The *Daniel Lyons*' bow is the site's most visually impressive feature. Before toppling to port, the bowsprit and jib boom dislodged from their location atop the stempost and split the bow in two along the stempost's starboard side, coming to rest atop the keelson. The jib boom is 53 ft. 6 in. in length and tapers slightly toward its tip, measuring 1 ft. 3-5/8 in. in diameter at its base and 11 in. in diameter at its center. Jib stays were fastened to the jib boom with two iron rings that are located 3 ft. 2 in. and 11 ft., respectively, from the jib boom's tip. Twenty-two feet from the jib boom's base is an iron ring that still fastens the jib boom to the end of the bowsprit. A 6 in. tenon protrudes from the base of the jib boom that secured the jib boom to the bowsprit by a mortised wooden block that remains intact atop the bowsprit. The bowsprit lies beneath the jib boom and extends 25 ft. 6 in. from bow. The bowsprit continues beneath the starboard side hull, which lies somewhat flattened over the bowsprit, stempost, and deadwood. A tangle of wire rigging lays around the bowsprit, as well as a sail gaff, complete with jaws, that lies immediately to starboard of the jib boom.

The canaller's bluff bow is readily apparent. The stempost is 7 in. sided by 2 ft. 2 in. molded, and is rabbeted to accept the outer hull planking. Its leading edge is protected with a stem iron that is beginning to separate at the

stempost's upper end. The stem iron has a 90 degree bend at its top that hooks onto and partially covers the top of the stempost's uppermost surface. The starboard bow's outer hull planking is 6 in. wide and 2-3/8 in. thick, and is intact with the exception of the foot of the bow. The starboard knighthead remains fastened to the outer hull planking's leading edge. The lower 4 ft. of 6 starboard cant frames are visible where the outer hull planking is absent. Square frames aft of the cant frames are absent, having broken above the turn of the bilge and are now obscured beneath the outer hull planking.

An eight in. diameter hawse pipe remains intact, centered 6 ft. from the railcap and 4 ft. from the bow. The starboard anchor chain runs through the hawse pipe and lies in a small loop atop the starboard side hull before ending in the sand. Neither anchor is present, having been salvaged in 1985 by local divers and fisherman (Milwaukee Public Library, n.d.). Six bulwark stanchions are visible where the bulwark planking is missing, measuring 6 in. sided and 9-5/8 in. molded, spaced 2 ft. on center. Eight feet aft of the bow is an iron open chock that is fastened atop the railcap.

The starboard side lies ceiling down and is nearly intact from the stempost to 106 feet aft where there is a clean break from the collision with the *Kate Gillett*. Portions of the bulwark have been crushed where the starboard side has collapsed onto the centerboard trunk. Three foremast chainplates are extant on the starboard side. The forward most forechain is 33 ft. 6 in. from the bow, the second forechain is 2 ft. 10-3/4 in. aft of the first, and the last forechain is 2 ft. 2-3/8 in. aft of the former. The mainmast was supported by four chainplates. The two forward mainchains are absent, but evidence of their fastenings is visible. The first extant mainchain is 82 ft. 3-5/8 in. from the bow, and the second mainchain is 3 ft. 2-3/8 in. aft of the former. The chainplates themselves are 3-5/8 in. wide by 5 ft. 10-3/4 inches long. Mainchain deadeyes are 8-3/8 in. in diameter and 3-5/8 in. thick, with 1-3/4 in. in diameter holes.

Immediately aft of the starboard side's collision damage lies the stern, complete with a fragment of the keel, keelson, deadwood, cant frames, outer hull planking, and fashion timber. The keel is broken 7 ft. aft of the mizzenmast step, and the large stern structure now lies approximately 40 feet north of its former location, likely the result of an entanglement with fishing nets. The broken keel section is 10 ft. 6 in. in length. A filler piece rides atop the keelson. Three deadwood timbers ride atop the filler piece, between the filler and the inner post. Cant frame fragments are extant on the starboard side, fastened to the deadwood with iron bolts. Fragments of outer hull planking are extant on the starboard cant frames as well as over the port side's keel / stern post interface. The stern post is 16 ft. 7-1/4 in. long, 10-1/4 in. sided by 10-1/2 in. molded. The stem post's aft surface is recessed to accept the rudder post. An inner post is attached to the stern post's forward edge, and measures 1 ft., 5-3/8 in. molded. The inner post runs from the keel to the underside of the fashion timber. The fashion timber is 18 ft. in width, and rises ten feet above the lakebed in its current position.

Immediately outboard of the sternpost, lying ceiling up, is the starboard side hull from the collision damage aft, measuring 33 ft. 6 in. in length. This section contains both square and cant frames for the entire run of the hull. Both square and cant frames are double framed. Each futtock is 4-1/2 in. sided by 8-3/8 in. molded. Frame spacing varies slightly between 1 ft. ¾ in. and 1 ft. 5-1/2 in. Ceiling planking averages 8 in. wide by 3-5/8 in.

thick. Two hanging knees remain attached atop the ceiling planking, each knee is 4 ft. 3-5/8 in. along the body, 2 ft. 4-3/4 in. along the arm, and 8 in. sided. A pin rack with intact belaying pins is extant, as well as a pin rack fragment that lies on the lake bed between the two starboard hull sections.

The intact transom lies abaft of the keel. The transom has no counter and has overall dimensions of 18 ft. 10-3/4 in. wide and 7 ft. 6 in. tall. The transom's outboard ends retain the side counter timbers that originally fastened to the fashion timber's ends. Two post timbers remain extant, each 6 ft. in height. There are five horn timbers on either side of the post timbers that measure (from the post timbers outboard) 6 ft., 5 ft. 6 in., 5 ft. 3-5/8 in., 4 ft. 9-5/8 in., and 4 ft. 4-3/4 in. in height. The horn timbers vary in sided dimension from 4-3/4 in. to 6 in., and vary in molded dimension from 6-5/8 in. to 7-1/4 in. Both the post and horn timbers are cut to join with the fashion timber, fastened with iron bolts. A single-sheave mizzen sheet block remains attached above the post timbers. The two outermost horn timbers retain iron rings attached near their upper ends. Stern knees at the top of either side's counter timber measure 2 ft. 1-1/4 in. along both the arm and body and 1 ft. 4-3/4 in. at the throat.

The port side hull has collapsed outward and lies ceiling up on the lakebed. The port side is largely intact for its entire length with the exception of the port quarter, which is separated by a break 32 ft. 5 in. forward of the transom. The port quarter section's ceiling is planked in widths varying from 6 in. to 1 ft. 4-3/4 in. Three mizzen chainplates are extant 15 ft. forward of the transom, with all three chainplates equally spaced at 1 ft. 5 in.

Forward of the port side hull break, the port side is double framed with 5 in. sided and 7-1/4 in. molded futtocks. Frames are spaced at 12 in. Ceiling planking is 3 in. thick and varies in width from 8 in. to 1 ft. 6 in. The two uppermost strakes, beneath the hanging knees, are somewhat thicker at 4 in., and are 1 ft. 7 in. and 1 ft. 5 in. wide. Deck beams are 6 in. sided and 7-1/2 in. molded, and are spaced at 3 ft. 9-5/8 in. on center. Each deck beam was supported by a hanging, lodging, and bosom knee. Hanging knees are 2 ft. 8-3/8 in. along the arm, 2 ft. 3-5/8 in. along the body, 1 ft. 2-3/8 in. at the throat, and 6 in. sided. Lodging and bosom knees are 2 ft. 8-3/8 in. along the arm, 2 ft. along the body, 10-3/4 in. at the throat, and 4-3/4 in. sided. Bulwark stanchions are separate timbers fastened between frame sets, rather than extensions of the top timbers.

Three sets of mooring bitts are located along both the port and starboard sides. The foremost bitts are located 32 ft. aft of the bow. The aft most bitts are located 32 ft. forward of the transom, and the amidships bitts are equidistant between the other two sets. Each bitt set is constructed of square timbers 4 ft. 6 in. tall, 9-5/8 in. sided, and 8-3/8 in. molded. The bitt timbers are spaced 2 ft. 6 in. on center. The foremost bitt has a closed wooden chock that passes through the bulwark planking between the bitts at deck level.

At the bow, sandwiched between the port and starboard sides, are the remains of the forecastle deck, sampson post, windlass, and chain locker. The curve of the starboard bow holds the starboard side somewhat off the wreckage beneath it, allowing limited access to the forward keelson and foremast and sampson post steps. Both steps are U-shaped, opening towards the stern. The sampson post step is 1 ft. 6 in. long and 6 in. wide, and rises

3-5/8 in. above the keelson. The foremast step is 8 ft. feet aft of the sampson post step, and measures 2 ft. 9-5/8 in. long, 1 ft. 2-3/8 in. wide, and rises 3-5/8 in. above the keelson; mortise dimensions are 1 ft. 7-1/4 in. long by 4-3/4 in. wide.

The sampson post has fallen towards the port quarter, and the windless now rests atop the forecastle companion way. The forecastle companion way is 3 ft. square on the outside of the combing. The combing is 10-3/4 inches tall on its inside edge, and 3-5/8 in. thick. The sampson post (or pawl bitt) formerly rose 6 feet above the main deck and is 1 ft. 4-3/4 in. square. The windlass pawl remains attached to the sampson post, and is 1 ft. wide, 1 ft. 7-1/4 in. long, and 5/8 in. thick. The windlass is 11 ft. 10-3/4 in. wide; circumference measurements could not be obtained due to the anchor chains, sampson post, and other hull structure and debris covering the windlass. The windlass' pawl rim teeth are 3-5/8 in. apart on center. Two purchase rims are 1 ft. 10-3/4 in. apart, each rim 3-5/8 in. wide. The crosshead remains attached to the forward side of the sampson post, complete with two purchase rods connecting the crosshead to the purchase rims' ratcheting mechanism. To weigh anchors, two hand levers were inserted in either side of the crosshead and two crewmen then worked the hand levers up and down, ratcheting the purchase rims and revolving the windlass. The pawl locked the windlass and kept it from reversing rotation between purchases. The anchor chain whelps are 2 ft. 8-3/8 in. wide and covered with four turns of the anchor chain on either side of the windlass. Outboard of either whelp is a 4 in. cheek piece that held the windlass to the carrick bitts. The windlass was supported by two carrick bitts 4 in. sided and 1 ft. 3-5/8 in. molded.

Each bitt is braced by a standard knee that measures 4 ft. on deck and 2 ft. 8-3/8 in. along the carrick bitt. A fragment of the windlass strongback that joined the sampson post to the carrick bitts is extant on the sampson post's aft surface.

The centerboard trunk remains upright and is the site's most dominant feature. The trunk is mounted atop the keelson on the vessel's centerline, and rises 9 ft. 7 in. above the keelson and is 25 ft. 8 in. long and 1 ft. 6 in. wide. The trunk is covered with 10 planks on either side that are 5-3/8 in. thick. Plank width from the top down is 8-3/8 in., 9-5/8 in., 10-1/4 in., 10-1/4 in., 9-5/8 in., 10-3/4 in., 1 ft. 1-1/4 in., 1 ft., 1 ft. 2-3/8 in., and 1 ft. 2-3/8 in. The trunk's covering board is 8-3/8 in. wide, and rises 1-1/4 in. above the trunk's side planking. A 2 ft. 8-3/8 in. long by 2-3/8 in. thick carling is mounted atop the covering board 9-5/8 in. from the trunk's aft end. This carling supported the centerboard winch, and the centerboard chain still runs through a hole in the center of the carling. The centerboard itself is visible through this hole, and remains in a retracted position with the chain still fastened to its aft edge. The centerboard chain runs from the centerboard down the trunk's port side; the other end remains attached to the centerboard winch, which lies on the bilge ceiling to the trunk's port side. The winch is heavily encrusted with zebra mussels and is nearly indistinguishable except for the presence of the centerboard chain. The *Daniel Lyons* was sailing to windward at the time of the collision, and the centerboard trunk would have been at least partially deployed, the impact with the bottom driving the centerboard into its current retracted position. A second centerboard access hole is located atop the trunk, 2 ft. 2-3/8 inches aft of the trunk's forward end. This square access hole is 7-1/4 in. wide and 8-3/8 in. long. The centerboard's pivot pin remains intact, located 1 ft. 6 in. from the trunk's forward edge and 2 ft. 6 in. from the top of the keelson.

The pivot pin's shank is 2 in. in diameter, peened over on a washer that is 6 in. in diameter. The pin is driven through the trunk from the starboard side, and is secured on the port side by a 1 ft. 1-1/4 in. long forelock pin that is driven through the shank.

Immediately forward of the centerboard winch lies an inverted capstan with an attached deck beam and 6 capstan partners. The capstan is heavily encrusted with zebra mussels that obscure many finer details. The capstan is 3 ft. 4-3/4 in. tall overall. The pawl rim rises 8 inches above the capstan partners. The capstan's barrel is 1 ft. 8 in. tall with vertical whelps spaced 8 in. on center. The drum head is 1 ft. tall and 2 ft. 2 in. in diameter. Handspike holes are 2 in. square and spaced on 1 ft. centers around the drum head. The capstan's data plate was absent and no patent dates were visible.

The keelson is visible aft of the centerboard trunk, extending 60 ft. 2 in. from the trunk to the break. Keelson dimensions are 18 in. sided and 18-¾ in. molded. The center of the mainmast step is 5 ft. 9 in. aft of the centerboard trunk. The mainstep is 6 ft. 1-1/4 in. in length, 18 in. wide and 4-3/4 in. thick. The step's mortise is 1 ft. 7-1/4 in. long and 7-1/4 in. wide, centered on the step. A scarph is visible on the keelson's upper surface 4 ft. 2-3/8 in. aft of the mainstep. Aft of the scarph, two holes for the bilge pump shafts penetrate the keelson. Each hole is 2-3/8 in. in diameter. The forward pump shaft hole is 17 ft. 4-3/4 in. from the centerboard trunk. The aft pump shaft hole is 2 ft. 10-3/4 in. aft of the former. The forward hole is slightly offset to the keelson's starboard side; the aft hole is centered on the keelson. A stanchion mortise is centered between the two pump shaft holes. The bilge pump itself lies off the keelson's starboard side. The pump is heavily encrusted with zebra mussels that obscure any manufacturer's marks or patent dates. The pump is cast iron, 2 ft. tall with a square base, and was mounted to the deck with a bolt at each corner of the base. The pump's outlet is semicircular and measures 7-1/4 in. wide by 4-3/4 in. tall. It appears that the bilge pump was mounted with a backing plate that now lies beneath the mizzenmast near the pump.

The mizzen step is 7 ft. 3-5/8 in. long, 18 in. wide and 3-5/8 in. thick. The mizzen mortise is 1 ft. 4-3/4 in. long by 8-3/8 in. wide, and is offset toward the step's forward edge. The mortise begins 2 ft. 3-5/8 in. from the step's forward edge and ends 3 ft. 7-1/4 in. from the step's aft edge. The limber boards are 6 in. thick and 1 ft. 2 in. wide. Visible ceiling planks measure 3-3/4 in. thick and vary in width from 8 in. to 1ft. 2 in.

The intact mainmast lies off the starboard quarter and is 87 ft. 6 in. long. The mast's foot is round and 1 ft. 8 in. in diameter, reinforced with a 2-3/8 in. wide iron band around its circumference. The tenon is 1 ft. 2-3/8 in. long, 7-1/4 in. wide and 3-5/8 in. deep. A fragment of the boom stop remains attached to the mast 13 ft. 3-5/8 in. above the foot, measuring 3-5/8 in. square. The top of the hounds is 75 ft. 3-5/8 in. above the foot and is 1 ft. 7 in. wide at the trestle tree. The masthead is 1 ft. square and rises 12 ft. 2-3/8 in. above the hounds. The masthead has three pairs of iron eyes on either side of the masthead where the shrouds once fastened. Each eye measures 4-3/4 in. in diameter. The first set of eyes is 1 ft. below the top of the mast, with the remaining two sets evenly spaced below the first at 1 ft. 6 in. on center. The mainmast's trestle tree lies to the starboard side of the mainmast and is partially broken. The trestle tree's inside dimension is 1 ft. square, matching the mainmast's masthead dimensions. The trestle tree's timber dimensions are 7-1/4 in. wide by 3-5/8 in. thick.

The intact mizzenmast lies across the keelson between the mainmast and mizzenmast steps. The mizzenmast is 69 ft. 4-3/4 in. long, with a base diameter of 1 ft. 4 in. The tenon measures 10-3/4 in. long, 4-3/4 in. wide and 3-5/8 in. deep. The iron reinforcing band at the mast's foot is 2-3/8 in. wide. An intact wooden ring for the boom stop is fastened 17 ft. 8-3/8 in. above the foot, and is 2-3/8 in. square. No hounds were visible at the masthead, but the trestle tree remains intact 59 ft. 8-3/8 in. above the foot. The trestle tree is 7-1/4 in. wide, 2-3/8 in. thick and 3 ft. 6 in. long. The trestle tree accommodated a topmast that was 9-5/8 in. square. The masthead is 9-5/8 in. square, with three sets of iron eyes 3-5/8 in. in diameter on either side of the masthead. The first set of eyes is 7-1/4 in. from the top of the masthead. The second two sets of eyes are equally spaced at 1 ft. 6 in. on center.

Off of the hull's starboard side lies the foremast's masthead. The fragment is 19 ft. in length and broken just below the trestle tree. The masthead is 1 ft. square. There are three threaded bolts with square nuts that measure 2-1/4 in square. The first bolt is 6 in. from the top of the masthead; the two lower bolts are spaced at 2 ft. on center. The trestle tree is extant and is 2-3/8 in. thick by 3-5/8 in. wide, with a 12 in. square inside dimension for the missing topmast. Two eye bolts 2-3/8 in. in diameter are attached to the underside of the trestle tree. A large tangle of wire rigging lies around the masthead and adjacent lakebed.

A topmast fragment lies to starboard of the bowsprit, forward of the mooring anchors. Measuring 11 ft. 8-3/8 in. in length, the topmast's foot is 1 ft. square, becoming round 2 ft. 5 in. above the foot. A mortise on the port side of the topmast's foot measures 3-5/8 in. wide, 4-3/4 in. tall and 2-3/8 in. deep. A mast cap remains fastened to the topmast 9 ft. 2-3/8 in. above the foot. The mast cap is constructed of wood, 2-3/8 in. square and 2 ft. 6 in. long. An iron eye fastened on topmast's forward surface 2 ft. 9-5/8 in. from the foot. A 2 ft. section of chain remains attached to the eye.

The rudder lies near the mizzenmast's masthead, off the hull's starboard quarter. The rudder blade is 9-5/8 in. wide and 11 ft. 6-3/8 in. tall. The base of the rudder blade is 3 ft. 4 in. long. An iron reinforcing strap protects the rudder's underside and trailing edge. The rudder post is 9-5/8 in. in diameter, but is broken 1 ft. below the top of the rudder blade. The rudder lies amidst a tangle of wire rigging on the lakebed.

A fragment of the cabin roof lies inverted on the bottom far off the wreck's starboard quarter. The fragment consists of 18 planks that average ½ in. thick, 4-3/4 in. wide, and 9 feet long. Four frames are extant, measuring 2 in. thick and 4-1/8 in. wide. The frames average 13 ft. 6 in. in length and are spaced at 1 ft. 9-5/8 in. on center. There is a visible camber to the roof.

Summary Paragraph

Located 4 miles off Stoney Creek's outlet into Lake Michigan, 9 miles northeast of Algoma, Wisconsin, the *Daniel Lyons* lies in 110 feet of water. Built in 1873 and sunk in 1878, the *Daniel Lyons* represents a class of vessel, the canaller, traveling the longest routes of any of the trades carrying grain grown in the heartlands to the eastern cities and returning with coal to fuel the development of the Midwest. Little historical documentation exists on canallers construction and operation. Much of our understanding of this type of vessel lies on the lakebed and comes from archaeological data recovered from wreck sites like the *Daniel Lyons*. The

Daniel Lyons meets the registration requirements for Criterion D at the state level for the property type sailing vessel as described in the Multiple Property Documentation *Great Lakes Shipwrecks of Wisconsin* (Cooper and Kriesa 1992). The *Daniel Lyons* was discovered in 1985 and documented in 2005. Due to its remote location, the *Daniel Lyons* remains lightly visited by divers. The *Daniel Lyons* has produced a wealth of archaeological knowledge on canal schooner construction and use, and it will continue to produce important archaeological data.

The *Daniel Lyons* meets the registration requirements for Criterion D at the state level for the property type sailing vessel as described in the Multiple Property Documentation *Great Lakes Shipwrecks of Wisconsin* (Cooper and Kriesa 1992). The period of significance begins with the completion of the vessel in 1873 and ends with its sinking in 1878.

The Great Lakes Grain Trade

Discussion of Wisconsin's maritime economy often requires the inclusion of the eastern Great Lakes of Huron, Erie, and Ontario. Many of Wisconsin's commodities were shipped beyond Lakes Michigan and Superior to eastern Great Lakes ports such as Buffalo, New York, and Kingston, Ontario. These distant ports returned goods, supplies, and immigrants to Wisconsin, creating a diverse regional economic universe. Separating Wisconsin from the eastern Great Lakes frequently results in a fragmented understanding of Wisconsin's maritime heritage as a whole.

Wisconsin's first encounter with a European sailing vessel occurred in 1679 when LaSalle's ill-fated *Le Griffon* landed on the Door County peninsula. LaSalle continued southward to explore the Mississippi valley. *Le Griffon*, loaded with furs bound for the European market, departed Washington Island on 18 September 1679, never to be seen again. Following *Le Griffon*, it was nearly 100 years before a sailing vessel again entered Lake Michigan. It is probable that ventures onto Lake Michigan were made by King George's Royal Navy in the 1760s, but the next confirmed sailing ship to enter the lake was John Askin's *Archange* in 1778, which sailed to Chicago and Green Bay in search of corn to supply Canadian fur traders (Quaife 1944:100). From the *Archange* to 1815, most sailing vessels on Lake Michigan supported military outposts such as Fort St. Joseph and Fort Dearborn (present day Chicago). In 1818, the *Walk-in-the-Water* was the first steamer constructed on the upper lakes. It entered Lake Michigan one year later to sail to Green Bay (Mansfield 1899:184, 596; Mills 1910:92).

By 1836, regularly scheduled steamship lines connected western Lake Michigan with eastern cities, and steam vessels were under construction at Milwaukee (Quaife 1944:150; *Milwaukee Advertiser* 1836). These steamers quickly pulled passenger traffic and high-dollar cargo from the schooners. On 21 May 1853 the Michigan Central Railway made the first rail connection with Chicago, and in 1855 the first all-rail connection between Buffalo and Chicago was established (Quaife 1944:155; Mills 1910:155). These railroads quickly stole the steamers' passenger and high-dollar cargo trade, resulting in even stiffer competition for sailing vessels. Unlike lake vessels, the rail lines could provide regularly scheduled shipments that were unaffected by weather, as well as year-round transportation unaffected by ice-covered water. Despite increasing competition, however, lake sail did not die easily. Sail's advantages were lower construction and operation costs, adaptability to many different trades, and the fact that sail technology was already at its zenith, having benefited from centuries of technological development. Sail required less capital investment, its propulsion cost nothing, and the smaller crews were inexpensive relative to steamers.

A unique vessel type developed on the Great Lakes; it was designed to transit the Welland Canal locks while carrying the largest possible amount of cargo. These box-shaped vessels were called "canallers." Designed to carry the maximum amount of cargo through the canal locks with only inches to spare, canallers had bluff bows, flat bottoms and sterns, short bowsprits, and highly-canted jib booms. Some canallers were rigged with a hinged or shortened jib boom that could be folded, removed, or de-rigged for passage through the locks. The mainmast (on two-masters) and mizzenmast (on three-masters) booms were typically shortened so they would not overhang the stern. Due to their boxy shape, there were claims that canallers were notoriously poor sailors in heavy weather, a claim supported by the fact that one particularly violent storm in October 1873 sent six Oswego canallers to the bottom with all hands (Karamanski 2000:32-34; *Oswego Daily Palladium 1873b*).

The Welland Canal opened on 30 November 1829. The first vessel through the canal was the British schooner *Ann and Jane* on a two-day up-bound transit from Port Dalhousie on Lake Ontario to Port Colburne on Lake Erie (both in Ontario, Canada). The original Welland Canal (1829-1845) limited vessels to 110 feet in length, 22 feet in beam, and 8 feet in depth. It followed many natural water routes, beginning with Twelve Mile Creek from Port Dalhousie to Merritton, Ontario where vessels locked through 40 locks over the Niagara Escarpment. The canal then followed the Welland River from Merritton to Port Robinson to avoid the Niagara Falls.

With increases in grain traffic and vessel size, the small canal locks were soon obsolete. The Canadian government purchased the Welland Canal Company and expanded the canal in 1846, reducing the number of locks to 27 and cutting a more direct route. The new locks were expanded to allow vessels of 150 feet in length, 26.5 feet in beam, and 9 feet in depth. The canal's original wooden locks became control weirs for the new canal, reducing the physical labor of towing ships from lock to lock (Aitken 1997; Mansfield 1899:229-239; St. Lawrence Seaway Management Corporation 2003:2-5).

The large number of immigrants that arrived on Lake Michigan's western shore during the early nineteenth century soon began moving from the lakeshore to populate the rich Midwestern prairie lands. Under the industrious settlers' hands, the fertile Midwestern soil soon began producing a large surplus of grain that made its way to Lake Michigan's port cities for transport to eastern markets via the Great Lakes. The inland lake route greatly facilitated the grain trade's growth by providing cheap and ready transportation.

The brig *John Kenzie* carried the first Lake Michigan grain shipment from Grand River, Michigan, to Buffalo, New York, in 1836. Chicago followed suit two years later, sending 39 bags of wheat to Buffalo aboard the *Great Western* in 1838. In 1839 the brig *Osceola* carried Chicago's first bulk shipment of wheat, carrying 1,678 bushels from Chicago to Black Rock (Buffalo), New York (Mansfield 1899:529).

It was not until the 1840s, however, that the Great Lake grain trade began in earnest. Chicago grain exports between 1834 and 1840 totaled 13,765 bushels (Mills 1910:116). The year 1841 alone, however, saw 40,000 bushels exported from Chicago. By 1847, Chicago was shipping more than two million bushels yearly. Milwaukee achieved an equal volume by 1853, and surpassed Chicago in grain exports by 1862 (Karamanski 2000:60). Due to a lack of adequate harbor facilities and grain elevators elsewhere on Lake Michigan,

Milwaukee and Chicago were the dominant grain ports.

Freight rates for grain were subject to supply and demand, dropping during summer months and peaking during the fall harvest time. Freight rates for the 1837-1838 seasons were eight cents a bushel, with an additional two cents per bushel surcharge for elevator service. During the 1850s, rates from Chicago to Buffalo remained steady between 10 and 15 cents per bushel, with steamers earning a fraction of cent more than schooners. During the 1860s, rates dropped to between 4 and 7 cents per bushel. From 1874 onward, rates began a constant decline, reaching 1.53 cents per bushel by 1898 (Cooper 1988:44; Mansfield 1899:535; Mills 1910:116).

The Lake Michigan grain trade consisted of mostly wheat until 1848, when corn began shipping in increasing quantities. Oats, barley, and rye were also shipped in small quantities (Cooper 1988:41). Buffalo and Oswego were early rivals for Lake Michigan grain, with Buffalo capturing a larger share of the trade during the early years. Oswego's disadvantage was that to reach Oswego from Lake Michigan, vessels were required to transit the Welland Canal and were charged a toll of six dollars per thousand bushels, a toll not required to reach Buffalo. By the 1870s, however, canal tolls from Buffalo to Syracuse equaled or exceeded the Welland Canal tolls, and with a shorter route from Oswego to eastern sea ports, Oswego's grain traffic swelled (Oswego Daily Palladium 1897). Vessels returning to Lake Michigan were often loaded with coal from ports on Lakes Erie and Ontario, used for heating Midwestern cities and powering steam-powered factories. Coal tonnage grew with transportation improvements between the mines to eastern lake shipping ports (Mansfield 1899:526).

Grain schooners made the Oswego-Chicago round trip in thirty to thirty-five days, and six to seven trips were completed seasonally (Oswego Daily Palladium 1897). The heyday of the canallers and the grain trade was short lived. By the late 1870s, the railroad was gaining ever-larger shares of Lake Michigan grain, and in 1880 rail tonnage finally exceeded lake tonnage (Mansfield 1899:530).

Vessel History

The *Daniel Lyons*, official number 6780, slid down the ways at 4:45 P.M. on Monday, 3 February 1873. The large amount of pageantry and celebration that accompanied the *Daniel Lyons'* launch marked the height of Oswego's shipbuilding era. The twenty-fifth of thirty-four ships built by George D. Goble, Jr., the *Daniel Lyons* was Oswego's first three-masted schooner (Oswego Daily Palladium 1873a, 1906). Built by the Goble & MacFarlane Shipyard for owners Daniel Lyons and George Goble, she was 142.5 feet in length, 26 feet in beam, 11 feet deep, and 318 gross tons (Daily News 1873a). The *Lyons'* hull lines were based on Goble's previous two-masted schooners *Nassau* and *Madeira*, but built to larger dimensions and with an additional mast. Her construction cost was $27,000, and her insurance rating was A1 (Oswego Daily Palladium 1873a).

George D. Goble, Jr. was a prominent Oswego businessman. Born on 1 August 1819 in Cork, Ireland, Goble learned the shipbuilding trade from his father in Ireland before immigrating to Oswego, New York at the age of eighteen (Oswego Daily Times 1906; Steen 2002). In 1844, the twenty-five-year-old Goble married Sara Collins, an eighteen-year-old Irish immigrant who bore him seven children: George William (1844), Nicholas

C. (1847), Joseph Heron (1849), Thomas C. (1851), Frederick (1855), Hioniasy (Bella) (1858), and Catherine E. (Nellie) (1862).

Goble worked in the Oswego shipyards for nineteen years before he began his own shipyard at the foot of West Fourth Street, where he launched his first schooner, *Titan*, on 6 May 1856. Goble's sons George III, Nicholas, and Thomas followed in their father's footsteps and became shipbuilders in their father's shipyard. Joseph Goble went away to school, but later returned to work in the Goble shipyard office (Oswego Maritime Foundation 2004; Steen 2003). The Goble yard operated at the Fourth Street yard for twelve years before moving to the foot of West First Street. At the new location Goble leased property from the Ontario Dry Dock Company and reestablished the Goble shipyard and dry dock there in 1868 (Oswego Maritime Foundation 2004). When Goble launched the *Daniel Lyons* in 1873, Oswego was at its height as a shipping port with 684 vessels enrolled at the Oswego Customs House. By 1896, however, only 27 vessels remained on the Oswego rolls (Oswego Daily Palladium 1897). By the time George Goble passed away on 14 October 1906, Oswego's heyday as a grain port was long past. The Goble shipyard continued operating for another six years following George Goble's death, but finally closed its doors for good in 1912 (Palmer 1991; Oswego Maritime Foundation 2004).

Daniel Lyons was proprietor of the distinguished Daniel Lyons & Son chandlery (formerly Lyons & Finney) of Oswego. Daniel Lyons & Son furnished rigging and supplies for many of the Oswego shipyards, including Goble's (Oswego Daily Palladium 1874a, 1874b, 1874c, 1878, 1897). The Lyons / Goble partnership included joint ownership of several Goble-built vessels, including the *Daniel Lyons*, *Westside*, *M.J. Cummings*, and *Montauk* (Oswego Daily Palladium 1863, 1874d, 1896). Daniel Lyons was active in Oswego County's Democratic Party and a delegate to the First Assembly District Democratic Convention in 1871. Ironically, partner George D. Goble was active in the Republican Party (Oswego Daily Journal 1853, 1871; Oswego Daily Times 1906).

The schooner *Daniel Lyons* was a canaller, built to the maximum allowable dimensions to transit the Welland Canal, and became the standard for a series of Goble-built canal schooners (Buffalo Evening Post 1873). Five additional canallers quickly followed the *Lyons*: the *Atlanta* built for Thomas S. Mott in May 1873, the *Sam Cook* built for A.G. Cook in September 1873, the *M.J. Cummings* launched in January 1874, and the *J. Maria Scott* and *Bolivia*, both launched in May 1874. Together with the *Daniel Lyons*, these schooners became signature vessels for Oswego and the Goble yard. All six vessels were 143 feet in length; 26 feet, 3 inches in beam, and 11 feet, 3 inches in depth of hold. The largest vessels that could transit the Welland Canal, they could carry 18,500 bushels of wheat through the canal locks. Their full lake capacity was 22,500 bushels, suggesting that a portion of the cargo was unloaded before entering the locks (Oswego Daily Times 1873). The *Daniel Lyons*' initial enrollment was entered on 8 April 1873 at the Port of Oswego. Ironically, she was registered as having only two masts, a clerical error that would be repeated on all of her enrollments (Bureau of Navigation 1873a, 1874a, 1874b).

Captain John Blackburn was the *Daniel Lyons*' first master (Bureau of Navigation 1873a). Born in Londonderry, Ireland, on 15 June 1832, Blackburn began sailing with his uncle at the age of ten in the Irish coasting trade. At age fourteen, Blackburn immigrated to the United States and soon after shipped out as a lamp boy on the propeller *Hibernia*. He then sailed aboard the schooner *Royalist* before moving to Oswego, New York, where he took up residence in December 1854. At Oswego, Blackburn continued working as a sailor aboard the schooners *Mary*, *Caroline*, and *Jessie Drummond* until the Civil War, when he joined the Union Navy to serve aboard the supply steamer *Vanderbilt* and later the gun boat *Albatross* (Oswego Daily Palladium 1886). Following the war, Blackburn returned to the lakes as master of the schooner *Traveler* and later the *Glad Tidings*. From 1871 to 1873, Blackburn was master of the Goble and Lyons' schooner *Westside* before taking command of the *Daniel Lyons* (Daily News 1873b; Oswego Daily Palladium 1886).

Blackburn commanded the *Daniel Lyons* from her launch through the 1876 shipping season. Under Blackburn's command, the *Daniel Lyons*' appears to have led a rather uneventful career as a grain trader, with the possible exception of surviving the raging storm of 27-28 October 1873 that claimed six Oswego vessels and crew: *Albion*, *Roman*, *Opeeche*, *Hastings*, *Persian,* and *Gilbert Mollison* (Oswego Daily Palladium 1873b). A search of contemporary newspapers uncovers only the occasional mention of her passage on the Welland Canal.

Blackburn became the Port of Oswego's harbormaster at the start of the 1877 season, a position he held for less than one season. Later that year, on 14 October 1877, the United States Life Saving Service chartered a station at Oswego and Blackburn left his harbormaster position to take command of the new station (Oswego Daily Palladium 1886, 1873b). It appears that Captain Michael M. Holland took command of the *Daniel Lyons* at the start of the 1877 shipping season, although this is not reflected in the *Lyons*' enrollments (Bureau of Navigation 1874a; Oswego Daily Palladium 1886). Contemporary newspaper accounts list a nearly complete record of the *Daniel Lyons*' 1877 season, documenting her transits up and down the Welland Canal. It is uncertain where the *Daniel Lyons* wintered over between the 1877 and 1878 seasons, but it appears that Capt. Holland was again in command for the 1878 season.

As with previous seasons, the 1878 season appeared to be drawing to a close as another happily uneventful year. Around one o'clock in the morning on Thursday, 17 October 1878, the *Daniel Lyons* departed Chicago with 20,000 bushels of wheat consigned to J.B. Griffin & Company of Black Rock (Buffalo), New York, from Chicago's D.W. Irwin & Company. Captain Holland was in command, with First Mate Owen Madden, Second Mate Daniel Gunn, Cook W.H. Barder, and four unnamed seamen (Milwaukee Sentinel 1878). The trip north along Wisconsin's shoreline was unremarkable in the light westerly wind and clear skies. With a bright waxing moon around three o'clock in the morning on 18 October, the wind veered to the northwest just after the *Daniel Lyons* passed Ahnapee (now Algoma). First Mate Madden was at the helm, and he swung the *Daniel Lyons*' course to the northeast to accommodate the shift in wind (Chicago Inter-Ocean 1878; Detroit Post & Tribune 1878b).

Aboard the *Lyons*, Madden saw the red and green running lights of the schooner *Kate Gillett* about a mile north of the *Lyons*. The *Kate Gillett* was a two-masted schooner 129 feet in length, 30.16 feet in beam, and 9.66 feet in depth. Built in 1867 by J.J. Miller in Conneaut, Ohio, the *Kate Gillett* was heavily laden with fence posts

from Cedar River, Michigan, bound for Chicago (Board of Marine Inspectors 1871). The *Kate Gillett*'s mate was also at the helm as the two vessels converged.

With the wind off her head, the *Daniel Lyons* had the right-of-way. As the two vessels approached one another, Madden lost sight of the *Kate Gillett*'s red running light, indicating the *Kate Gillett* altered her course to port so the two vessels would safely pass starboard to starboard. Minutes later, however, the *Gillett*'s green light disappeared and only the red light was visible, indicating the *Kate Gillett* had turned to starboard and a collision was imminent (Chicago Inter-Ocean 1878; Detroit Post & Tribune 1878b). Madden swung the helm in a desperate attempt to avoid the collision, but the *Kate Gillett*, traveling at 9 knots, struck the *Daniel Lyons*' starboard side between the main- and mizzenmast, pushing her stem nearly halfway through the *Lyons*' hull. The collision's force threw the *Daniel Lyons*' cook from his bunk (Milwaukee Sentinel 1878). Lodging together, much of the *Kate Gillett*'s broken head gear crashed onto the *Daniel Lyons*' deck. Suffering damage to her starboard bow, the *Kate Gillett* quickly began leaking (Detroit Post & Tribune 1878a; Manitowoc Pilot 1878; Port Huron Daily Times 1878).

With the *Kate Gillett*'s bow cutting the *Daniel Lyons* nearly in two, there was no question the *Daniel Lyons* was mortally wounded. The *Kate Gillett*'s Captain, Jerry McCarthy, worked to keep the *Gillett*'s bow deep in the *Lyons* in an effort to keep her from flooding until her crew could escape onto the *Gillett*. The two vessels remained locked together for 15 minutes while the *Daniel Lyons*' crew scrambled to save their possessions. Captain Holland saved some of his clothing and the ship's books; the crew saved a portion of their belongings, the small boat, and a few lines before the two vessels separated around four o'clock in the morning. The *Daniel Lyons* settled quickly at the stern, rolled onto her port side, and sank bow first[1] (Chicago-Inter Ocean 1878; Detroit Post & Tribune 1878b).

Leaking badly, the *Kate Gillett* continued toward Chicago. Both the *Gillett*'s and the *Lyons*' crew worked continuously at the pumps to keep her afloat. Capt. McCarthy kept the *Gillett* close to shore as she sailed towards Chicago as a safety precaution should the water in the hold begin gaining on the pumps (Boyd and Defnet 2002). The *Gillett* safely made Chicago at five o'clock in the afternoon on Saturday, 19 October (Chicago Inter-Ocean 1878).

The day following the accident, the schooner *Skylark* encountered the *Lyons*' wreckage while en route to Racine. Eight miles north of Ahnapee and about five miles from shore, the *Skylark*'s Captain Councer reported that the *Daniel Lyons*' white topmasts were protruding from the water, still topped with gilt balls and flying her new red and blue pennant. Her cross trees were submerged and the fore-mast had been carried away. Dispatches went out announcing the navigation hazard (Chicago Inter-Ocean 1878; Detroit Post & Tribune 1878b).

[1] The *Milwaukee Sentinel* (1878) published a somewhat different account that described the crew's bags and the captain's trunk and papers loaded into the small boat. The boat was lowered and the crew pulled away before the *Lyons* sank. Only then did the *Kate Gillett* come about to pick up the destitute mariners.

At Chicago, Capt. McCarthy refused to accept responsibility for the accident and blamed Madden's actions in causing the collision. Capt. McCarthy stated that upon seeing the *Daniel Lyons*' lights, the *Gillett* changed course one point (11 degrees) to the west. In turn, Madden adjusted the *Lyons*' course and lost the wind, preventing the *Gillett* from safely crossing the *Lyons*' bow. The *Gillett* then maneuvered to clear the *Lyons*' stern, but was too late and collided with her starboard side (Chicago Inter-Ocean 1878).

Captain Holland made no public rebuttal, but the *Lyons*' crew related that the *Gillett*'s captain was in error in attempting to cross the *Daniel Lyons*' bow as the *Lyons*' had the right-of-way. The *Gillett* was legally required to keep clear of the *Lyons*. If the *Gillett* had altered her course to port rather than starboard, a clear starboard to starboard passage would have been achieved (Boyd and Defnet 2002; Chicago Inter-Ocean 1878; Chicago Tribune 1878).

The *Kate Gillett* was owned two-thirds by J.V. Taylor of Taylor, Bush & Company, and one-third by Captain Jerry McCarthy, both of Chicago. Eleven years old at the time of the collision, the *Gillett* was an aging vessel and carried no insurance. A lawsuit taken out against the *Gillett* by the *Lyons* could only recover the *Gillett* herself, whose value was one-seventh that of the *Daniel Lyons* and her cargo. The *Daniel Lyons*' cargo was insured by the Chicago Marine Insurance Pool for $10,500 (Chicago Inter-Ocean 1878). Her hull was valued at $15,300, and insured by both the Orient Mutual Insurance Company and Detroit Fire and Marine Company for $4,000 each (Detroit Post & Tribune 1878b). It is uncertain if a lawsuit was ever filed against the *Gillett*.

The *Daniel Lyons*' final enrollment was surrendered at the Port of Oswego on 31 December 1878 (Bureau of Navigation 1874a). Capt. Holland went on to captain several other Oswego vessels, including the schooner *Sage*, before accepting the office of Inspector of Hulls for the Oswego District in 1888 (British Whig 1880, 1888).

The *Daniel Lyons* was quickly forgotten and her remains lay undisturbed for 107 years until 1985, when Kent Bellrichard relocated the *Daniel Lyons* using local fishermen's tips. Andy LaFond, an Algoma commercial fisherman, assisted the divers in recovering the *Daniel Lyons*' two wooden stock anchors and assorted rigging. The anchors were placed outside LaFond's Algoma fish house (Milwaukee Public Library n.d.).

Archaeological Significance

Nearly all the *Daniel Lyons*' hull sections are represented; wreck sites such as the *Daniel Lyons* present a ripe opportunity to study and learn about historic wooden vessel construction. The advantage of broken hulls is that they offer many construction details that are hidden in more intact vessels. The *Daniel Lyons* is the best of both worlds – she is intact enough to have nearly all hull sections represented, but is opened up enough to allow a thorough examination of many intricate details that would be hidden were the *Daniel Lyons* completely intact. Visible features include the stem and stern construction, inner framing techniques, and more hidden workings such as the construction and operation of the centerboard.

Many opportunities remain for further research that can significantly add to our understanding of Great Lakes sailing vessels in general, and to canallers specifically. While it is common knowledge that canallers were boxy vessels compared to the clipper-type Great Lakes schooners, little comparative work has been conducted between the archaeological remains of the two vessels types. Conducting a more detailed archaeological survey of the construction features specific to canallers, such as construction of the stem and stern, the turn of the bilge, and hull lines offers significant opportunities to add to our limited knowledge of canallers. Wooden vessels were rarely built to drawn plans. Today, little documentation exists that illustrates how wooden sailing vessels were constructed and the differences in hull shape and construction between the different schooner types, such as the canaller and the clipper-type models. The Goble shipyard was one of the most prominent yards on the eastern lakes, yet little documentation has survived describing the construction of Goble's vessels. The *Daniel Lyons* is of particular significance because it was the first three-masted vessel to be launched from the yard and served as a model for several nearly identical vessels that followed.

Due to their boxy hull shape, it has been suggested that canallers were poor sailers, particularly in heavy weather. The fact that a single Great Lakes storm claimed six of Oswego's canallers and crew lends credibility to this claim. With no historical documentation surviving that details Goble's hull lines, it is only archaeological sites such as the *Daniel Lyons* that can answer the questions of whether or not the canaller was an inherently dangerous craft. Further research and documentation at the *Daniel Lyons* site have the potential to answer these questions.

Historical records indicate the *Daniel Lyons* was struck on her starboard side halfway between her main- and mizzenmasts. Archaeological evidence supports this. Although the *Daniel Lyons*' hull is broken on both her port and starboard quarters, it is apparent that the collision occurred on the starboard side. Examining the breaks on both the port and starboard sides, it becomes evident that the starboard break is much cleaner than the port side. The break in the starboard side is square and clean, as would be expected if the sharp bow of another vessel were wedged into it. The port side, however, is a large jumble of frames, ceiling, and outer hull planks without a definable break.

Historical accounts indicate the *Daniel Lyons* rolled onto her port side before she sank bow first. Archaeological evidence, however, suggests the *Daniel Lyons*' stern struck the bottom first. The *Daniel Lyons*' aft sections are far more broken than her forward sections. Additionally, her keel is broken seven feet aft of the mizzenmast step. This suggests that the *Daniel Lyons* sank stern first, breaking her keel upon collision with lakebed, which subsequently fractured the entire stern from the main hull. It is not likely the collision with the *Kate Gillett* caused the keel break, as it is farther aft than where the *Gillett* struck the *Lyons*.

The current location of the stern section is a bit perplexing, as it lies approximately 50 feet forward of its former location near the transom. Although no evidence of commercial fishing nets were identified, the current location is likely the result of an entanglement with fishing nets that dragged the stern section to its current

location. The *Daniel Lyons* site was rediscovered with tips from local commercial fisherman, supporting the likelihood that the *Daniel Lyons* has had one or more encounters with commercial nets.

Although the *Daniel Lyons* had not been as heavily visited as other Wisconsin shipwrecks, many artifacts were recovered by recreational divers following her discovery. Cultural artifacts that were not removed from the site are now hidden by the increasing mussel colonization.

The *Daniel Lyons*' large size, coupled with the fact that she is somewhat broken and scattered about the bottom, creates an incredibly complex site requiring a large amount of time to document her to the highest level. Few schooners in Wisconsin waters present such a prime opportunity to learn and examine first hand the long-forgotten knowledge required to build some of the most beautiful ships to ever sail the Lakes - the three-masted canal schooner. The site's complexity, depth, and the fact that the vast majority of the survey crew was comprised of volunteers with limited archaeological experience create opportunities for higher levels of documentation in the future.

The *Daniel Lyons* meets the registration requirements for Criteria D at the state level, as established in the Multiple Property Documentation *Great Lakes Shipwrecks of Wisconsin* (Cooper and Kriesa 1992). The *Daniel Lyons* is a rare example of a vessel type that was vital to Wisconsin's economy, the economy of the Midwest, and transportation infrastructure prior to the development of road and rail networks. Canallers like the *Daniel Lyons* were an important link for the development of the Midwest, connecting the region economically and culturally with the eastern markets. Although partially broken up, the *Daniel Lyons* retains excellent archaeological integrity. No historical record of ship construction exists today, making archaeological examples particularly significant. Information gathered from the *Daniel Lyons* site has increased our understanding of canal schooner construction and use on the Great Lakes. The *Daniel Lyons* site retains the potential to yield even greater insight into this vessel type in future years.

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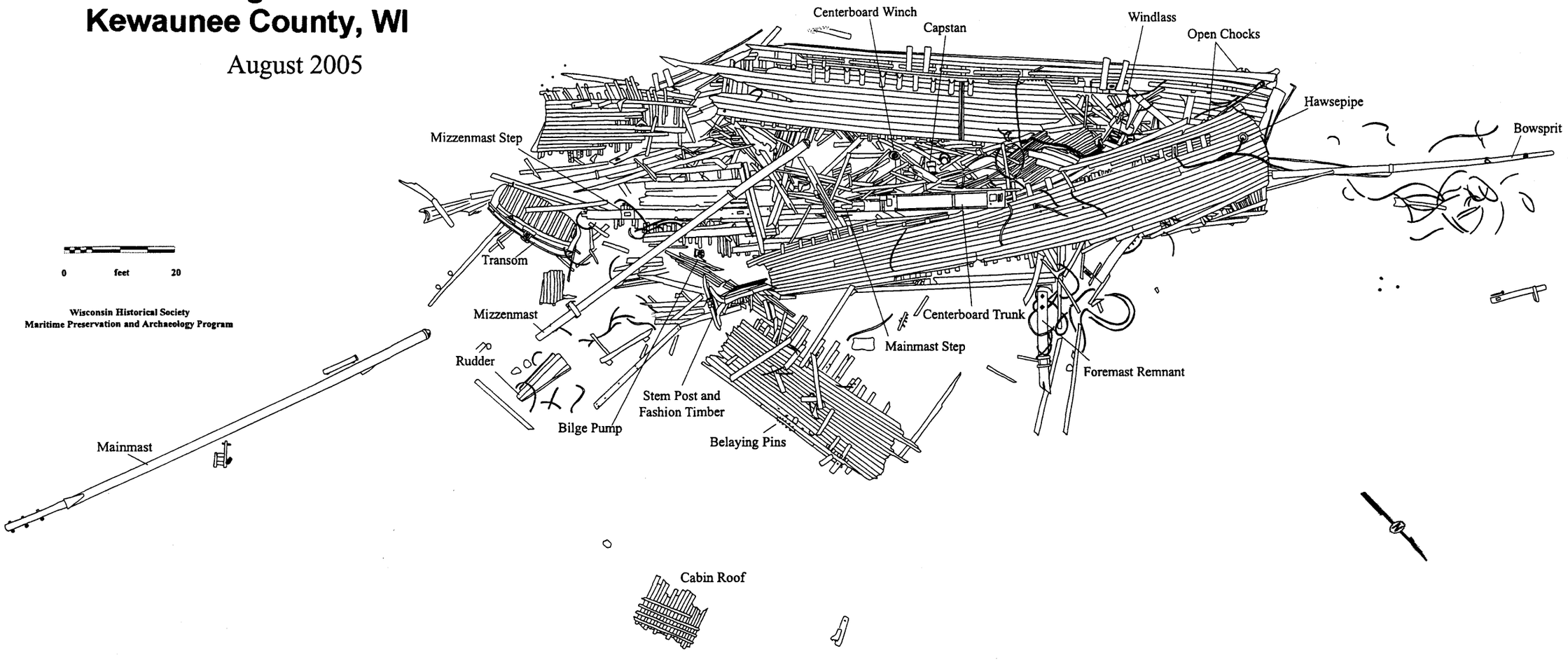
Boundary Description
The area included in the site is a circle with a 250 foot diameter centered on the UTM coordinates 0476601 Easting, 4946411 Northing, Zone 16.

Boundary Justification
The boundary was drawn to encompass the extent of the shipwreck and associated debris field.

Photo #1 of 1
"Daniel Lyons" Shipwreck
Kewaunee County, Wisconsin
Photo by Tamara Thomsen
21 June 2005
Negative at the Wisconsin Historical Society, Madison, WI
Facing Northeast

"Daniel Lyons" Shipwreck
Lake Michigan
Kewaunee County, WI

August 2005



Wisconsin Historical Society
Maritime Preservation and Archaeology Program