NUMBER 32 SPRING 2014 SCO Drill pipe from the collection. Photo: Standard Oil (New Jersey) Collection, SONJ38943,

Archives and Special Collections, University of Louisiville

# Postwar Louisiana Imagery Returns Home

The oil and gas industry has been a vital part of Louisiana's economy since the early part of the 20th century. Now, thanks to a partnership between the libraries at the University of Louisville and Louisiana State University, photographs from the early years of oil production in Louisiana are available online.

The Standard Oil (NJ) Collection at the University of Louisville contains more than 100,000 photos and other images. Louisiana Sea Grant's Don Davis, who learned of the collection 10 years ago, and Carl Brasseaux spent a week there recently identifying, cataloging and scanning Louisianaspecific photos from the collection. In all, they were able to find more than 2,100 photos that tie back to the Pelican State.

"Years ago, I had the opportunity to visit Louisville and asked to see the pictures. They were more than happy to show them to me because no one ever asked to see them," Davis said. "They brought out binders full of pictures, and after looking through them I knew they were important. It was always in the back of mind how valuable these photos could be to researchers."

When the opportunity arose for Brasseaux, a historian who has worked with LSG the past few years, and Davis, a cultural geographer, to go to

Kentucky, they enlisted the help of Elaine Smyth, interim dean of LSU Libraries who has a background in special collections. "Don approached me about helping to work out an agreement to make the pictures available through the Louisiana Digital Library," said Smyth. "Most people wouldn't think to look for information about Louisiana's oil industry in Kentucky. But by collaborating with the University of Louisville we have been able to bring these images back to Louisiana in a digital form."

"Carl and I had four scanners and we spent an intense week going through all these pictures. We were basically just minions," Davis said. "It was absolutely worth it, though, to be able to make these pictures available."

The photos were shot between 1943 and 1950 and document life in southern Louisiana beyond just the oil industry. The collection includes pictures of families, Baton Rouge and New Orleans street life, fishing and recreational culture, and the production of a documentary by Robert Flaherty titled *Louisiana Story*.

"This collection really helps fill in a gap that existed in documenting life in the postwar era," said Brasseaux. "During the Depression, the Farm Security Administration had its photography program that has supplied us with most of the enduring images of that era. Standard Oil picked up the torch in a sense after World War II and continued that mission of cataloging everyday life. That's what we see in these pictures. It's really a great research tool."

The photographs are available for viewing through the Louisiana Digital Library at *http://www.louisianadigitallibrary.org/cdm/landingpage/collection/p16313coll52*.

Other Louisiana Sea Grant-sponsored collections in the Louisiana Digital Library include the Louisiana Sea Grant Digital Images Collection and the Louisiana Sea Grant Digital Maps Collection, accessible at *http://www.louisianadigitallibrary.org/index.php?institution=Louisiana%20Sea%20Grant* as well as the Percy Viosca, Jr. Collection, which can be found at *http://cdm16313.contentdm.oclc.org/cdm/landingpage/collection/LSU\_PVC*.



The 2014 Derelict Crab Trap Rodeo was a success, with community volunteers, students from LSU and Nicholls State University, and state employees pulling more than 800 lost and abandoned crab traps from the waters near Dularge on Feb. 15. This was the annual program's 10th year. "Thanks to all who supported and helped with organizing and participating in Saturday's cleanup," said Martin Bourgeois, a biologist with the Louisiana Department of Wildlife and Fisheries (LDWF). LDWF founded and heads the program. Louisiana Sea Grant, the LSU AgCenter, the Audubon Nature Institute's G.U.L.F. program, the Louisiana Universities Marine Consortium (LUMCON), the Louisiana Crab Task Force and the Coastal Conservation Association also offer support.

Louisiana Sea Grant is spearheading a study looking into safe harbor options for commercial fishermen in the Vermilion Bay area. Currently, the project is in the data collection phase, according to LSG Sustainability Coordinator Lauren Land.

"We ordered and have installed a depth finder that's correlated with GPS," said Land. "We're going to be taking depth soundings of five different waterways and we want to make sure we're also capturing a GPS point so we can layer it on a Geographic Information Systems (GIS) map." Sea Grant and LSU AgCenter Extension

## Safe Harbor Options Studied

agent Mark Shirley has been collecting the depth readings, and Sea Grant/ AgCenter Extension specialist Maurice Wolcott has been adding the data to the GIS map.

The idea is to identify what points along the waterways are passable and which are impassable due to depth, in light of the vessel dimensions of the commercial fishing fleet in the area. Once the information has been collected and researchers have an idea of what the water bottoms look like, the next step will be to take the GIS map to engineers who can create designs and develop size and cost estimates of what the infrastructure for a safe harbor might entail.

In coordination with Sea Grant/AgCenter Extension agent Thu Bui, Land has collected surveys from several fishermen in the Vermilion Bay area, asking them what they did to secure their vessels and families in preparation for previous storms. Bui has also collected their feedback about the best way to communicate important information about approaching storms and available options for securing commercial boats. "Once we have our maps developed, we hope to present our findings to the Coast Guard as well as to the local communities," Land said. "In the end, this project is intended to help the people of this community become more resilient by reducing hazardous and costly conditions that can be created in the wake of storms like those we've seen in recent years."

The project is the result of a \$35,000 FEMA Community Resilience Innovation Challenges grant sponsored by the Rockefeller Foundation.



## 'Water Like Stone' Chronicles Slow Loss of Leeville

Louisiana's wetlands are vanishing faster than any other coastal region in the United States. It is a slow-motion disaster of incredible proportions, with an area the size of Manhattan disappearing every year. Leeville is one of dozens of fishing villages on the front lines of this environmental catastrophe.

The recently completed documentary *Water Like Stone*, sponsored in part by Louisiana Sea Grant, is a story about the people who live in Louisiana's vanishing wetlands. Through encounters with fishermen, shrimpers and lifelong residents of the region, filmmakers Zack Godshall and Michael Pasquier profile the cultural consequences of environmental decay and the human spirit necessary to live in a dying landscape.

"We wanted to make a film that would provide a window into a world that is disappearing, a film that would allow the audience time to dwell in the place and with the people who live there. And so, the film offers no easy answers, solutions or causes. Rather the film contemplates what has been and will be lost," said Godshall.

"Residents of coastal Louisiana, more than anyone else in the United States, understand the environmental challenges of coastal erosion, sea-level rise and wetlands loss," said Pasquier. "Knowing the problem – that the wetlands are disappearing – Michael and I just went straight to the source and set much of our film in Leeville, a fishing village in Lafourche Parish, that is itself a microcosm of what is happening all along the coast."

To watch the trailer, clips and for other info, visit: www.waterlikestonefilm.com.

Phyllis Melacon, featured in Water Like Stone.' Photo by Michael Pasquier.

## Advanced oil-water separator under development

Oil and water don't mix - so says the old axiom but when a spill occurs in the environment, separating oil from water is a tremendous challenge. Skimming, burning, deploying absorbent booms and applying chemical dispersants are common cleanup methods for eliminating petroleum from the surface of a water body. However, not all oil floats to the very top. Researchers at Michigan State University (MSU) are working to improve existing recovery technology to reach this sub-surface oil, and Louisiana Sea Grant will conduct outreach on the project. The effort is funded with a three-year grant from the Environmental Protection Agency (EPA).



"Lots of spilled oil exists in an emulsified form," explained Volodymyr

Tarabara, an associate professor of Environmental Engineering and associate director of the Environmental Science and Policy Program at MSU. He is the principal investigator on the project. "Some spilled oil exists as so called 'free oil' – larger droplets that rise through the water column to gather on the surface – and this oil can be collected with skimmers. However, when droplets are small, they remain suspended in water. These droplets are tough to separate out."

Tarabara and his team hope to expand the capabilities of existing hydrocyclones that spin polluted water at a high velocity to separate out oil. "Existing technology can remove some dispersed oil, but hydrocyclones fall short when droplets become smaller than about 30 microns," he said. "If we don't remove these small droplets, we may not be compliant with EPA requirements."

The method that Tarabara's team is working on adds crossflow filtration to the process. With the use of porous membranes, Tarabara believes the smaller droplets of emulsified oil can be eliminated, and quickly.

But what do the states of Michigan and Louisiana, with collaborating universities more than a thousand miles apart, have in common? Neither is immune to oil spills.

"After the Deepwater Horizon spill in 2010, Michigan had its own spill in the Kalamazoo River," said Alan Matherne, LSG and LSU AgCenter Marine Extension agent for Terrebonne and Lafourche parishes. "Consequently, the group of MSU researchers developed the idea of merging existing technologies into an oil-water separation device. They developed a grant proposal for the EPA. MSU approached Louisiana Sea Grant – because of our success in doing outreach after the spill and hurricanes – to develop and administer the outreach portion of the project."

Matherne's objectives are to ensure that residents and stakeholders become involved in the project and understand the research. He also wants to identify the broad community concerns about health and environmental risks from oil spills and to make coastal residents more knowledgeable so that they can better judge proposed responses for themselves when a spill occurs. He plans to accomplish this through social networking, the development of a local advisory committee, demonstrations, community meetings and by making research materials more accessible through fact sheets, news articles and presentations.

#### On the Web:

- www.bayoulog.com
- www.egr.msu.edu/cee/people/tarabara.html

## **Training Geared to Help Seafood Industry**

An expanded partnership between Louisiana Sea Grant (LSG) and the Louisiana Department of Wildlife and Fisheries (LDWF) will help commercial fishermen, dock owners and seafood processors survive and thrive in an increasingly competitive and regulated industry.

"The working title for this effort is the Louisiana Seafood Professionalism Program (LSPP)," said Thomas Hymel, the LSG and LSU AgCenter Extension agent who will lead the effort. "The program will marshal the technical and outreach capabilities of Louisiana Sea Grant and LDWF for the development of a workshop- and web-based curriculum to aid our seafood industry in achieving sustainably managed expansion."

During the past two and a half decades, the sale of Louisiana commercial fishing licenses has decreased by 56 percent. Similarly, more than half of the firms in the seafood dealer and processor sector have downsized, consolidated or closed.

"LSPP – or Fishing Forward, as some are calling it – will provide fishermen with several workshops annually to help them understand business trends, new technologies, as well as new regulations," said Hymel. "The recent Seafood Summits in Houma and Delcambre, as well as the Crab Workshop in St. Bernard, and an oyster refrigeration program in the Cameron area this fall, are just a few examples of what is planned for fishermen in 2014."

Supplementing the workshops will be up to 10 online videos. The first to be produced will be "How to Be a Commercial Fisherman" and "How to Be a Seafood Dealer/Processor." Each video will have accompanying written materials that will be retooled as state and federal rules change.

"The first video, for example, will provide new fishermen with a detailed overview of the statutes governing legal harvest of major seafood species – shrimp, crab, oysters and finfish. It will also serve as a good refresher for existing harvesters, reminding them of their responsibilities as well as best management practices," Hymel said. "The seafood dealer and processor video will follow a similar outline.

"Our goal here is to provide our fishing industry with the knowledge and tools they need to move beyond being just a commodity producer of bulk seafood. 'Fishing Forward' means consistently maintaining the highest quality product from the moment it reaches the boat to when it lands on the consumer's plate," said Hymel. "The payoff will be higher prices and stronger demand for Louisiana seafood."



#### Sea Grant Supported Students Graduate

Nine graduate and undergraduate students supported by Louisiana Sea Grant completed their degrees in 2013. The list includes:

• Deepa Acharya, Master of Science, Louisiana State University (LSU) Department of Agricultural Economics and Agribusiness. Thesis: *Commuting Patterns and Labor Markets: A New Regional Classification for Louisiana*. Major professor: Ashok Mishra.

• Victoria Bacheler, Master of Science, Nicholls State University Department of Marine and Environmental Biology. Thesis: Constructed Oyster Reefs Assist in Creation of Habitat for Fish and Macroinvertebrate Assemblages in a Louisiana Estuary. Major professor: Earl Melacon.

• Steven B. Garner, Master of Science, LSU Department of Oceanography and Coastal Sciences. Thesis: *Effects of Mimic Artificial Oyster Reefs on the Ecology of Juvenile Fishes in Marsh Ponds: A Before-After-Control-Impact Analysis.* Major professors: Rick Shaw and James Cowan.

• R.M. Kalpanee D. Gunasingha, Bachelor of Science, LSU Department of Chemical Engineering. Undergraduate thesis: *Modeling Dissolution of Oil Droplets During the Ascent in Marine Water after a Deep Water Oil Spill*. Major professor: Louis Thibodeaux.

• Aaron J. Honig, Master of Science, LSU School of Renewable Natural Resources. Thesis: *Population Ecology of the Ribbed Mussel in Southeastern Louisiana*. Major professor: Megan Lapeyre.

• Dannielle Kulaw, Master of Science, LSU Department of Oceanography and Coastal Science. Thesis: *Habitat-and-Region-Specific Reproductive Biology of Female Red Snapper in the Gulf of Mexico*. Major professor: James Cowan.

• Justin C. Nedelea, Doctor of Philosophy, LSU Department of Agricultural Economics and Agribusiness. Dissertation: *Three Essays on the Efficiency of Rural Hospitals in the United States*. Major professor: Matt Fannin.

• Matthew A. Pendergraft, Master of Science, Tulane University Department of Earth and Environmental Sciences. Thesis: *Investigating Oil Degradation and Mixing in Coastal Environments Using Ramped Pyrolysis*. Major professor: Nicole Gasparini.

• Carlos E. Santos, Master of Science, LSU Department of Geology and Geophysics. Thesis: *Palynostatigraphy of the Umar Formation, Middle Magdelena Valley Basin Columbia.* Major professor: Sophie Warny.

Persons interested in obtaining copies of the theses and dissertations should contact Jessica Schexnayder at *jsche15@lsu.edu*.

#### Forecasters Learn to Use CERA

The Coastal Emergency Risks Assessment (CERA) research group at LSU, in conjunction with Louisiana Sea Grant, held a two-day ADCIRC/CERA training event at Louisiana State University in late February. CERA operates a forecasting model that uses the ADCIRC Surge Guidance System (ASGS) to predict wind, wave and storm surge impacts to Louisiana's coastline during a hurricane's approach and landfall. Twenty-seven workshop participants – including the National Weather Service, Southeast Flood Protection Authority, as well as LSU, Mississippi State University, Notre Dame and University Erlangen personnel – learned how to create, run and analyze a coastal regional model using ADCIRC. The workshop also covered the real-time visualization tool "CERA" and its usage during the active hurricane season. Emergency managers have used the CERA tool extensively during impending or active tropical storms, including hurricanes Irene (2011), Isaac (2012) and Sandy (2012). The CERA website is available at *http://cera.cct.lsu.edu*.

Workshop speaker Carola Kaiser, with LSU.

### Message from the Executive Director

"It" – whatever that "it" may be for the future of coastal Louisiana – also needs to be relevant now.

We often talk about what our coastal communities will look like 100 years from now, 50 years from now, 20 years from now. Although that is essential, that discussion also needs to engage the needs of how our communities will transition "now."

Sea Grant's goal for 2014 is to participate in that dialogue. We are going to encourage synthesis of what we learned yesterday to form discoveries for tomorrow; integrate that discovery into what we're doing today; and apply that integration so our stakeholders can utilize it. This will be a challenge, but I can't over-emphasize the need to make our university-based research relevant to our coastal citizens not only for the future "it," but also for the present "now." The transition of communities to a future coast requires thought on how to connect Discovery-Integration-Application so that we nurture our cultural instincts to be more resilient in a dynamic coastal environment.

One of the first steps will be teaching our young researchers how to describe their work to nearly anyone they meet – and make clear why their research is important – in the time it takes to checkout at the grocery store. Another component will be synthesizing the research already done into tools that can be used by ordinary people and small businesses – not just elected officials and policy makers. We need to make sure we keep our discoveries and integrated solutions focused on "now" as an instrument to transition our communities for the "future."

As this year progresses, you will learn more about what we're doing here at Sea Grant to build these connections between research and outreach. And I hope you will join us in this effort to strengthen our coast – not only for the 50-year horizon, but also for solutions that can benefit

communities today.

Robert Twilley, Ph.D. Executive Director Louisiana Sea Grant College Program





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### Natural Hazards Handbook for Homeowners Available

Hurricane season is nearly here. It's not too late for homeowners to make necessary preparations to protect their homes and loved ones. Through the Louisiana Homeowners Handbook to Prepare for Natural Hazards, residents of Louisiana have a useful resource at their fingertips as they begin readying their families for natural disasters.

The handbook explains the forces of nature that act on structures during storms, including the dangers associated with high winds, heavy rain and storm surge. It further lays out ways to gird a home against these forces to minimize or negate their



effects, as well as information on how to reduce the human toll exacted by dangerous storms.

The handbook is available in PDF format at www.lsu.edu/sglegal/ pubs/handbook.htm as a free download. Free hard copies are available at various locations throughout coastal parishes, or the book can be ordered for \$5 - to cover postage and handling - by emailing Jessica Schexnayder at jsche15@lsu.edu.

**On the Web:** http://www.youtube.com/watch?v=tlI37\_vusOA