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## astrolabe

## newsletter of the Turks & Caicos National Museum

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# Search for Trouvadore: 2006 Season

Progress continues on exploring this historic shipwreck site.

By Nigel Sadler, Turks & Caicos National Museum Director Images © Trouvadore Project Photographers include Nigel Sadler, Jean-Francois Chabot, Dr. Donald Keith and Dr. Randy Davis



Among the finds of the season was this cathead, a beam projecting from near the bow of the ship and from which an anchor would be attached. Note the carved five-pointed star at the end.

Museums are not just about displaying artefacts. They are here to carry out research to expand the knowledge made available to visitors and users. Since 2000, the Museum's main research project has been the search for Trouvadore, a slave ship that wrecked off East Caicos in 1841. All the Africans survived and 168 of them remained as freed people in the Turks & Caicos Islands, increasing the population by 7%.

In July 2006, the Trouvadore Project, consist-

ing of three partner organisations — the Turks & Caicos National Museum, Ships of Discovery and Windward Media - spent its second season off East Caicos looking for the Trouvadore remains. We had three main goals: use high tech gear to cover the 2004 and 2006 survey areas to confirm findings of the towboard teams; extend the survey area beyond the boundaries of the 2004 season and test-excavate the wooden wreck found in 2004.



### Getting started

After an ominous start to the 2004 season (when the project set sail with Hurricane Francis bearing down), the team did not believe we would have such bad luck again. In fact, the 2006 season's departure from Grand Turk on July 10 started off well. *Caribbean Explorer I* had made good time sailing from the Bahamas and was quickly processed through customs and immigration the previous day. In spite of an initial rough crossing, Captain Eamonn Dowley anchored the boat near to Breezy Point by 5 PM.

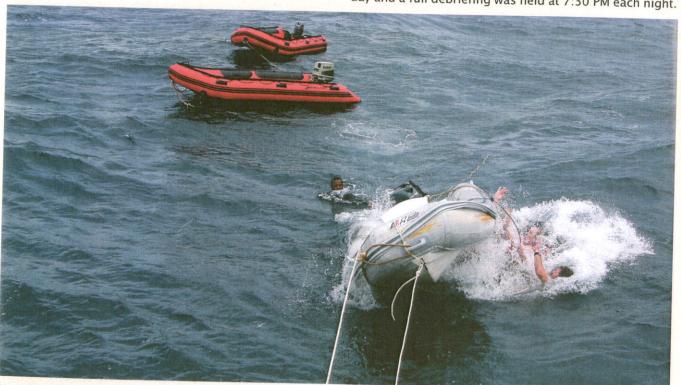
The team got an early start the next day preparing the flotilla of small inflatable boats — quite a feat on a heavily swaying vessel. Levardo Talbot, the Department of Environment & Coastal Resources (DECR) representative and Mitch Rolling took one vessel to relocate the cut through the reef that had been used in 2004. Members on watch, however, soon saw the boat flipped by a freak wave right on the reef! Two rescue boats were immediately dispatched to find Mitch and Levardo sitting atop their upturned boat, with only their prides dented a little. The boat was dragged back to *Caribbean Explorer I*, flipped upright and the engine washed out and encouraged back to life by Jean-Francois Chabot and Reece Dennis.

Based on this incident, the team decided to relocate Caribbean Explorer I to the eastern end of the survey area at Thatch Cay. Here, Drum Point would provide some protection, the waves would be smaller and the team could have a more restful night's sleep.

Once Caribbean Explorer I had re-anchored, Levardo and Mitch set off to find a cut through the reef at Thatch Cay. Unfortunately, the boat's new location was not ideal, since most of the work was going to take place at the western end of the survey area, a 20–30 minute boat ride away.

Before going to bed, the team was given more disheartening news. The forecast suggested worse weather was on its way. In that case, Captain Eamonn would have to take the vessel back to Grand Turk for safety. Luckily the next morning hadn't seen a worsening and work finally began.

In fact, rain and swells hindered the team only one morning, when the team had to return early to Caribbean Explorer I. Generally, the teams were able to leave the boat each morning before 9 AM and return by 5:30 PM. This didn't mean work was finished! All the gear had to be washed down and prepared for the next day and a full debriefing was held at 7:30 PM each night.



Here, an inflatable boat is being flipped upright after being overturned on the reef by a freak wave. The two red rescue boats are in the background.

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## astrolabe newsletter of the Turks & Caicos National Museum



### The four teams

To speed up work and utilise individual skills, project members were split into four teams, with each team reporting their daily work at the evening debriefing.

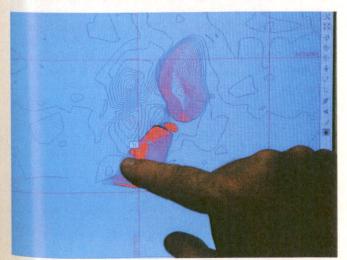
### The magnetometer team

This team consisted of Jason Burns and Mike Krivor, with boat handler Mitch Rolling. A magnetometer is best described as a metal detector towed behind the boat. The metal detector (or "fish") "reads" iron objects and transmits signals back to a computer. Team members

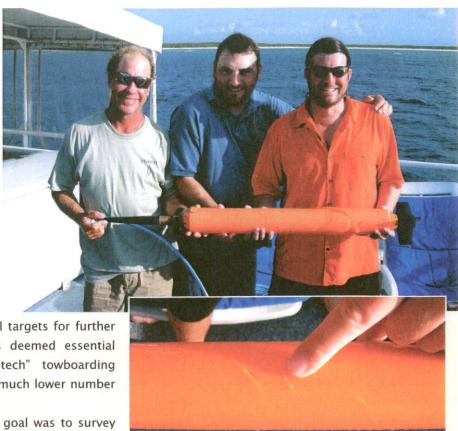
translate the readings into potential targets for further investigation. This equipment was deemed essential because in the 2004 season, "low tech" towboarding only located two historic wrecks, a much lower number than expected in the area.

The magnetometer team's first goal was to survey over the area of the wooden wreck found in 2004, then extend out from there. They did manage to cover the entire licensed survey area, discovering several anomalies. Anomaly 1 was very close to the wooden shipwreck and gave out a higher metal reading than the wooden wreck site.

The magnetometer results confirmed that the towboarders in the 2004 and 2006 seasons had located and recorded all of the man-made items visible on the sur-



Signals picked up by the magnetometer are transmitted to a computer and translated into potential targets. Anomaly 1, shown here, gave out a higher metal reading than the wooden wreck site.



Top: The magnetometer team (from left Mitch Rolling, Jason Burns and Mike Krivor) hold the "fish" metal detector.

Below: The teeth embedded in the "fish" are from a hungry barracuda.

face. The anomalies were, in fact, areas with no visible finds on the surface, suggesting buried iron items.

At the end of the season, while removing the protective foam tube on the "fish," close inspection revealed barracuda teeth stuck in the foam — damage caused by barracudas attacking it during towing. These thoughts were always in the minds of the towboarding team who regularly encountered barracudas.

### The towboarding team

This four member team was lead by Nigel Sadler with rotating team members including Johnnie Christ, Dan Hallett, Angelie Peterson and Dylan Simmons. The group also became known as the "away team" due to the fact that the team also took care of any "odds and ends" tasks that arose.

Towboarding consists of two team members being towed behind a boat. They would watch out for any manmade items on the seabed. Once located, the boarder would release their towboard and stay above the item.





Each item would then be recorded.

The towboarding boat was equipped with a Global Positioning System (GPS) which recorded the boat's track each day. When an item was found, a GPS mark was taken on the location. All of the GPS information was downloaded on computers and the results overlaid on a map of East Caicos.

Once the team had completed the survey area they were given the task of investigating Anomaly 1, the site about 100 metres away from the wooden shipwreck and located by the magnetometer. The first job was to use a metal detector to locate potential sites and then to clear the sand to see what was there.

### Wooden wreck team

One of the main goals was to find the extent of the wooden ship-wreck located in 2004 and to try and recover some diagnostic material that might help date the wreck or show the cargo it was carrying.

Marine archaeologists Dr. Donald Keith, Dr. Toni Carrell, Dr. Randy Davis and James Hunter were joined by Levardo Talbot and occasionally by some of the crew of *Caribbean Explorer I*. Their main tasks were to record the site, place test excavation pits to discover the depth of any remains and to recover any materials that might help identify the date or use of the ship.

### Documentary makers/photographer

The documentary team of Veronica Veerkamp, Richard Coberly and Fujio Watanabe was assisted by Jenn Cumming in video work, whilst Captain Jean-Francois Chabot assisted in the photographic recording of the finds. Each day, the documentary makers decided what they needed to film and joined whichever team would enable them to do that filming, usually the wooden wreck team.



Top: Sea conditions were very rough for the towboarders. Here, they seem to "disappear" as a large wave approaches.

Above right: Nigel Sadler uses a metal detector to located potential sites for investigation.

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### The finds

The project isn't just about Trouvadore, it is about finding all man-made items that lie off the coast of East Caicos so the museum can build a detailed file on the area. This means that all items have their locations recorded and be photographed. At the same time, any excavation work at the wreck site was recorded both in field notes, detailed scale illustrations and a photographic record.

### The wooden wreck

Small rocks, known as ballast,

were historically carried in ships to help them sit upright in the water. If a ship was not heavy enough, it would ride too high in the water and could easily roll over. If it was too heavy, it would sit too low in the water and could easily be swamped by big waves. Therefore the ballast

found on a wreck site can tell the team something about the ship.

The ballast mound discovered on the wooden wreck in 2004 was very small for such a large vessel, and this was confirmed by the excavation on the site. It is possible that the ballast has been carried away, but more likely the small ballast mound suggests that the vessel was carrying a heavy cargo. (Sometimes what is *not* found is just as important.) At this time there is no evidence of a cargo, suggesting that it was salvaged or, alternatively, that it was a cargo that had been broken down in the sea, such as salt, and would leave no trace. The ballast mound is also important as it can tell us where the rocks came from. It is sometimes possible to locate the exact geological origins of rocks that make up the ballast.

One of the intriguing finds is the numerous small pieces of narrow wood that are flat on one side and rounded on the other. These were found throughout all



Top: James Hunter uses a dredge hose to gently remove sand from some of the timbers.

Left: Some of the uncovered ship's timbers. All the wooden timbers were left *in situ* and reburied to protect them.

the test excavation pits and are puzzling the archaeologists. However, one suggestion has been put forward. At first appearance, the wood might be willow which is known for its flexibility. The wood can easily be interpreted as straps to hold things together, and one item on board a ship of this size that would need straps would be the barrels, for water or a cargo. Barrels were clearly on board this vessel and a barrel stave and part of a barrel top were recovered for further analysis. No metal hoops for barrels were seen, which may suggest they had no metal parts.

### Anomaly 1 site

It was clear from the first day of investigation that this anomaly was an extension to the wooden shipwreck to its west. The first area uncovered copper sheeting and a large plank of wood, probably part of the ship's body. At this site a barrel stave was recovered.

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Top: The mechanism for the anchor rope on the cathead was also well preserved. Above left: James Hunter measures and records the cathead.

Metal detectors picked up stronger signals about 100 feet northeast of this plank of wood and this turned out to be one of the finds of the season. The metal detector had picked up metal fasteners, which were a few inches below the surface. These turned out to be part of a cathead, a beam which projects from near the bow of the ship and from which an anchor would be attached. The cathead was lying upside down but easily identifiable. It consisted of a long piece of wood with a

square profile and a curved support that had a carved decoration on it. The end of the cathead had a carved five pointed star. The mechanism for the anchor rope was also well preserved.

The cathead turned up a new question. The portion of the cathead that would have been external to the ship was in good condition, but the portion that would have been inside the ship showed signs of serious fire damage. The *Trouvadore* account did not mention anything to do with a fire wrecking the ship. However, it is more likely that a fire occurred *after* the ship wrecked. This could have been the result of a lightning strike on the wreck, deliber-

ate burning by locals to destroy the wreck, or accidental fire caused by a salvage attempt. It must be remembered that the wreck sits in 15 feet of water, so there would have been visible remains above the surface, perhaps for decades after the wrecking.

Just to the north of the cathead the metal detectors went wild and soon a large collection of metal items were uncovered. These consisted mostly of fasteners and a few were recovered for further analysis.

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### Survey area

The towboarders only located two new locations. The first was a large, isolated anchor. What was unusual about this anchor was that it was only about 100 feet from shore, but its shaft was facing the beach. Normally one would expect to find the shaft pointing towards deeper water. This might suggest that the anchor was deliberately placed there for another use.

The second was the remains of a metal shipwreck. All of the finds related to this wreck were on the reef or on the inside of the reef. showing stainless steel and other modern metals. This wreck probably occurred after 1970 and as such does not fall into the Historic

 ${\sf Shipwreck}$  Ordinance, where shipwrecks had to happen  ${\sf tor}$  run over the seabed detected nothing  $-{\sf suggesting}$ over 50 years ago. However, the wreck was recorded as it will eventually fall under this ordinance.

One of the biggest shocks of the season was the boiler spotted on the reef during the 2003 aerial reconnaissance. Although just east of the survey area, we felt it worthwhile to visit the site, confirm the wreck there and mark it with a GPS coordinate. Since 2003 the Museum had classed the boiler as a shipwreck site; this was proved wrong. The "wreck" turned out to be a collection of train engine wheels, carriage wheels and some axles. Along with the boiler on the reef, this was all that was in the region and it appears that the boiler and wheels belong to a train.

The only conclusion that could be drawn from these finds is that a ship ran aground on the reef at this location. It probably was not seriously damaged and to refloat it, the crew needed to dispose of part of their cargo and the heavy train parts were chosen and dumped. The wheels suggest this scenario, as they appear lined up as they would have been on board the ship, suggesting the cargo (probably on timber) was just pushed over the side.

The magnetometer team picked up several major anomalies. Anomaly 1 resulted in many finds and investigation of anomaly 2 was inconclusive, as a metal detec-



The submerged train wheels found during the 2006 survey appear to have been pushed over the side of a ship run aground on the reef.

the iron items are very well buried.

### Is the wooden wreck Trouvadore?

This is a question that the team is unable to answer at the moment. Some of the initial concerns of why it might not be a transatlantic trade ship have been removed. Initial suggestions following the 2004 season were that the ship was lightly built and only 60-80 feet in length, probably not sufficient for a transatlantic slave ship. However, we now know the wreck is at least 120 feet long and is of substantial construction.

However, nothing from the wreck site can be used to confirm that the wreck is Trouvadore. We have no easily datable finds such as coins, the pottery at first appearance is not diagnostic and none of the finds link in with what we would expect on board a slave ship. The good news is that nothing so far found indicates that the ship could not be Trouvadore.

#### What next?

The first thing we need to do is to analyse and conserve the finds collected during the 2006 season. Samples of wood, coal, basalt and pottery have been taken for analysis. A thin section taken from the basalt rock found in the ballast mound will be given to geologists to see if

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105









From top to bottom: Recovered barrel stave; recovered barrel top; metal fasteners recovered

they can determine the origins of this rock, which might give an indicator of where the ballast was loaded and thus point to at least one port where this ship had called. The coal will be analysed to see if its source of mining can be located. The wood will be analysed to assess what type of wood it is and, if possible, its source. The non-diagnostic pottery will have its con-

struction assessed and a sample of the pottery fabric may give a location of manufacture. None of this sampling alone will give proof that the wreck is Trouvadore, but may lead to some evidence that can be used as part of a conclusion.

The items recovered and held at the TCI National Museum will also need to undergo conservation. Preventative work has already started, with some of the encrustations on the metal items being removed and all items have been secured so that no further deterioration will occur. This basically means that all the items are stored in water until active conservation can begin.

The project will continue archival research on Trouvadore with the hope that this will come up with new information about where in Africa the slaves came from, other cargoes onboard (if any) and more information about the salvage work carried out in 1841.

More importantly, the team must now research other ships that have been recorded sinking off East Caicos. Identifying other ships can eliminate them from

being the wooden wreck discovered. Research will try to determine such things as construction, location of wrecking, date of wrecking and cargo being carried. If all other recorded shipwrecks are eliminated it would leave only one conclusion — that the wreck is probably Trouvadore. But this conclusion is a long way off and will need many months or years of research.

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One fact that has emerged from the 2006 season is that the wooden wreck off East Caicos is substantial. Whether or not this is *Trouvadore*, it is an important historic shipwreck and needs further investigation. However, it also needs to be protected from unscrupulous treasure hunters. One of the recommendations from this project will be that the area around the wooden wreck is protected until more is learnt about it.

### Thanks

The *Trouvadore* project is only possible with external financial support. Survey and excavation work is very expensive, with the 2006 season costing around \$160,000 for two weeks work. The Turks & Caicos National Museum and Ships of Discovery would like to thank the following for providing funding:

- NOAA Ocean Exploration Program
- Turks & Caicos Islands Conservation Fund
- · Teddy Foundation
- Turks & Caicos Islands Tourist Board
- · Dayton Foundation

The Museum would also like to thank the following for providing assistance:

- · Wesley Clerveaux, Director of DECR
- · Andre Garneau, Attorney General's Chamber
- Department of Immigration
- Department of Customs

## The team members

### Archaeology team

- ·Dr. Donald H. Keith, field director, Ships of Discovery
- · Dr. Toni L. Carrell, archaeologist, data logger, Ships of Discovery
- · Nigel Sadler, towboarder, excavator, TCI National Museum
- · Dr. Randal C. Davis, archaeologist, medic, Ships of Discovery
- · Jason M. Burns, magnetometer operator, SEARCH
- James W. Hunter, III, archaeologist, draftsman, W. Lasch Conservation Lab
- · Mike Krivor, magnetometer operator, SEARCH
- · Mitch Rolling, boat wrangler, Blue Water Divers
- · Jenn Cumming, videographer, photographer, Explorer Ventures

- · Captain Jean-Francois Chabot, videographer, photographer, Explorer Ventures
- · Levardo Talbot, excavator, boatman, DECR
- · Dylan Simonson, towboarder, boatman, School for Field Studies

#### Film team

- · Veronica Veerkamp, script writer, Windward Media
- · Richard Coberly, film project director, Windward Media
- · Fujio Watanabe, videographer, KUHT PBS, Houston

### Caribbean Explorer I crew

- · Captain Eamonn Dowley, captain
- · Nicola Martin, purser
- · Angelie Peterson, divemaster, towboarder, excavator
- · Johnny Christ, divemaster, towboarder, excavator
- · Dan Hallett, divemaster, towboarder, excavator
- · Reece Dennis, divemaster, engineer
- · Don Purvis, cook

For more information on the project please visit www.slaveshiptrouvadore.com or contact Nigel Sadler at the Turks & Caicos National Museum, 649 946 2160.

## www.slaveshiptrouvadore.com

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