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For information about community events, lectures, concerts, nature walks, educational programs for children, and others, see the Conservancy's website below.

www.thewatchhillconservancy.org

Celebration of Summer 2014

Saturday, June 28, 6 p.m.

Misquamicut Golf Club

60 Ocean View Highway, Watch Hill



Annual Meeting, Saturday, August 16, 5 pm, Misquamicut Golf Club



THE WATCH HILL CONSERVANCY NEWSLETTER

February, 2014 Vol. 7 No. 1 Watch Hill, R.I.

CHAPLIN B. BARNES NAPATREE POINT CONSERVATION EASEMENT

As reported in the August 2013 issue, the matter of a conservation easement over Watch Hill Fire District property on Napatree Beach and Point, proposed by the District Council, was presented to the voters of the District at a special meeting held August 24, 2013. The easement, to be held by the Watch Hill Conservancy, was approved by an overwhelming majority and the easement deed has now been recorded in the Westerly Land Records.

The easement covers all land owned by the District that runs westerly from the Misquamicut Club to the tip of Napatree, some sixty acres of ecologically significant open space barrier beach. Not covered are seven small former house lots still in private ownership and the two owned, respectively, by the Town of Westerly and the State of Rhode Island. The three small lots owned by the Conservancy are already restricted to conservation uses.

The Conservancy Board has designated it the "Chaplin B. Barnes Napatree Point Conservation Easement," in honor of former Conservancy Executive Director Chaplin Barnes, whose efforts over several years led to its establishment.

Younger readers may not be aware of the very dramatic natural and human impacts which have shaped Napatree over just the past 200 years. Before the Great Gale of 1815, the beach and point were heavily forested. (The name "Napatree" means "neck of trees".) That storm swept away the trees, creating a natural barrier similar to what now exists. In the late 19th century, the federal government established Fort Mansfield at the end of the Point, and private development in the early 20th century led to the construction of 39 substantial summer cottages, all of which were swept away in a matter of hours by the Great New England Hurricane of September 21, 1938. The storm created three breaches in the barrier. Two healed, but the third still separates the tip of Napatree from its former tip, now Sandy Point Island in Little Narragansett Bay.

Sharon E. Ahern Appointed Executive Director

The Conservancy Board is delighted to announce the appointment of Westerly native Sharon Elliot Ahern as Executive Director, succeeding Chaplin B. Barnes, who resigned late last year. Ahern, a graduate of Wellesley College and Tulane Law School, also holds a Masters Degree in Environmental Law from Pace University Law School.



Following private practice in New York, where she also served as Adjunct Professor of Environmental Policy at the City University of New York (CUNY), she served from 2001 to 2004 as Downtown Manager of the Westerly-Pawcatuck Joint Development Task Force, and from 2005 to 2013 as Chief of Staff of the Town of Westerly.

She will assume her duties at the beginning of March.

The easement is intended to preserve Napatree in its present natural state, to continue current uses such as scientific research and monitoring, environmental education, swimming, sun-bathing, walking, and bird watching, and to prohibit actions or activities that would negatively affect the resource or interfere with current uses.

A Baseline Documentation Report identifies current conditions and will be referred to in any future determination as to possible or potential human threats to the area.

The easement itself lists both permitted and prohibited uses and commits the Conservancy to enforce the provisions of the easement. In the event that the Conservancy incurs expenses in doing so, the Conservancy has established a fund to meet such costs.

The Watch Hill community has taken a very important step in safeguarding its most significant natural resource from negative human disturbance. It cannot, of course, protect it from inevitable natural processes, such as the impact of rising sea levels and storms. [CBB]

The steep oceanside slope of the Great Bluff on East Beach north of Lighthouse Point, actually the Watch Hill, from which the community takes its name, is undergoing a dramatic stabilization project this winter drawing attention for its interface with the tidal zone and East Beach. While fully permitted and scrutinized by the Rhode Island Coastal Resources Management Council (RICRMC), this privately-undertaken project to protect the bluff has promoted considerable discussion.

The latest policy advice from coastal officials is to plan to adapt to the environmental change coming within the next decades, sea level rise and associated flooding having perhaps the most significant impact. Beach erosion and sea level rise have been noticeable in Rhode Island east of Watch Hill, most notably at Matunuck. Napatree, to the west, has also seen major changes. The sea wall in the Village is now overtopped or flooded through its scuppers on a routine basis. Sea level rise, coastal storm surges, and

erosion will have an increasing impact upon Watch Hill's many assets. Some of these impacts can be prevented or mitigated, if property owners and the community prepare for them in advance.

The work on the Great Bluff on East Beach includes supplementing the existing slope of enormous granite boulders which bear the brunt of storm energy, retain the soil, and assist in controlling erosion.

The site was in its natural sandy dune and bluff state until the large summer cottage was built atop the bluff in 1930. The cottage was named Holiday House by its first owners and later High Watch by a subsequent owner. The concrete sea wall at the base of the bluff was constructed when the house was built. New boulders are now being placed seaward and landward of the sea wall, which stretches across the upland side of the beach the full width of the property. Boulders

Construction plans and reviews for the

Regrettably, progress has been slowed due

complete restoration of Bay Street and the other

roads included under the Department of

to severe weather, technical difficulties, and

other factors. Although all work was expected to

be finished before summer 2014, the remaining

construction work, including new sidewalks and

curbing, street lights, crosswalks, and final road

paving, will not begin until next fall. Completion

of the utility project (i.e. energizing of the

underground lines and removal of poles) and the streetscape restoration is now scheduled for

2015. Provisions will be made for a safe roadway

and sidewalk for the coming summer.

Transportation TIP grant are all proceeding.

are also being placed on the bank above the seawall. Such "armoring" of the coast would likely not be approved for new construction, but the revetment wall (also known as rip-rap) work above the sea wall is being treated as a repair. The bluff had already been treated with revetment following the 1938 Hurricane to prevent further erosion of the bank and hill upon which stand the historic house, pool, and surrounding terrace and lawn. (See photos of the site in various stages

> of development in "Watch Hill Through Time" pgs 140-142 and pg 148, on the Conservancy's website, www.thewatchhillconservancy.com.) In light of future sea level rise and beach erosion, stabilization of the bank is vital to the future welfare of this property, which is exposed to the full fury of the Atlantic Ocean

With projected sea level rise of 1 foot by 2050, and 3-5 feet by 2100, Watch Hill property owners including the Fire District, Watch Hill Yacht Club, the Misquamicut Club, and other institutions such as the Improvement Photo by Richard C. Youngken Society, the East Beach Association, and the

Lighthouse Keepers Association, will have to think carefully about necessary preparation to safeguard assets. For example, new mapping of the impact of projected sea level rise shows potential inundation of low-lying areas in Watch Hill Village surrounding the commercial harbor front should the community fail to heighten the sea wall, another existing hard surface. The Fire District parking lot at the Watch Hill Yacht Club and Larkin Square is now routinely flooded at high tide. As with the Great Bluff project, proactive strategies could significantly reduce future problems. There are no simple solutions. Hard surfaces such as stone revetments and sheet steel bulkheads can cause negative secondary impacts to nearby beaches and shoreline. A new fact sheet issued by the Rhode Island Coastal Resources Center (RICRC) entitled "Protecting Rhode Island's Shorelines from Flooding and Erosion," states that "a properly-designed revetment is intended to dissipate

(Continued on Page 3)

Preserving the Lower Pawcatuck Bay Street Revitalization

The Conservancy's utility undergrounding At the end of 2012, the Stonington Land Trust obtained an option to purchase a conservation and enhancement project is proceeding through easement on 168 acres of the historic Stanton-Davis Farm (1654), in Lower Pawcatuck, The the winter. The utility companies are preparing acreage is comprised of two parcels: 120 acres of fields and woodland (adjacent to Barn Island) to pull their cables through the already-installed and 48 acres on the Pawcatuck River, with six-tenths of a mile of direct frontage. This parcel is infrastructure under the roadways. An electrical distinguished as the largest undeveloped acreage on the lower river. Obtaining this easement contractor is pulling cables from the manholes will complete the preservation of the entire 422-acre farm and will provide a total of nearly in the street to the meter boxes on buildings. one-mile of preserved Davis Farm waterfront.

> This land has played an important role in both Colonial and Native American history. Connecticut State Archaeologist Dr. Nicholas Bellantoni states, "This site contains the earliest and most intact 17th-century Pequot Village in the State and is one of the most significant properties in our records. The future preservation of the Indian and Colonial sites should be a major priority to all of us."

The Watch Hill Conservancy encourages support of this important project. Preservation and conservation of the Stanton-Davis Farm is of tremendous historical and ecological benefit. Stonington Land Trust has begun a \$2 million campaign for the preservation of the property. As of January 2014 they had reached 40% of the goal. For more details and/or to arrange a visit to the Farm, please contact Stanton Simm at 860-535-1337.



Donations to Stonington Land Trust, Inc. may be sent to the Trust at P.O. Box 812, Stonington, CT 06378

Napatree Notes

Our annual beach cleanup will be held at 9:00 a.m. on March 29th with a rain date of April 5th. We welcome volunteers of all ages and ask that they meet us at the entrance to Napatree next to the parking lot of the Misquamicut Club. Trash bags will be provided.

On June 1st we will begin registration for our children's Summer 2014 Napatree Investigators program. This popular series is directed by Stephen Brown, Science Chair at Pine Point School in Connecticut, and co-led by Hugh Markey, Warwick High School teacher. Each week, the Investigators will learn about a different facet of Napatree's natural environment such as shells, seaweed, tides, and crabs.

Participants have the choice each week of attending on Tuesday, Wednesday, or Thursday from 8:30 a.m. to 10:30 a.m. beginning July 8th and ending on August 21st. Children may attend individual sessions or sign up for all eight weeks.

This free program is available on a first come, first served, basis to children ages seven to fourteen. Space is limited, so register early by contacting us at Napatreenaturalist@ gmail.com after May 31st.

Starting June 21st at 9:00 a.m., we resume our Saturday morning nature walks led by our naturalists. These walks are structured around the interests of the participants and generally run two hours. Whether you are fascinated by threatened bird species, history, or just wish to learn about Napatree while enjoying a walk on a beautiful beach, everyone will enjoy this activity. Be sure to check the June issue and our website for special walks led by experts in their fields!

All activities and programs are free and sponsored by the Watch Hill Conservancy and The Watch Hill Fire District. For more information or to register, please contact Napatreenaturalist@gmail.com or check the Watch Hill Conservancy website.

Reminder: Westerly Town Ordinance prohibits unleashed dogs on the beach. After May 1st until after Labor Day, leashed dogs are allowed on Napatree between the hours of 6:00 p.m. and 8:00 a.m.

We are very excited about our new Facebook page which features current Napatree notes from our naturalists. Check out Napatree Point Conservation Area for pictures, recent sightings, and other information. [JS]

State of Napatree Report:

The Conservancy's Napatree Scientific Advisors (all distinguished scientists, with ties to the University of Rhode Island and the Rhode Island Natural History Survey) and Napatree staff have prepared the first of what are expected to be annual reports on the environmental state of the Napatree Conservation Area.



The illustrated report, which is posted on the Conservancy website, is a summary of science, research, management, education, and natural history programs conducted at Napatree during the year.

Its information is presented in special chapters:

- Investigators 2013: Napatree Point Children's Education Program
- Understanding the Short and Long-term Shoreline Change of Napatree Barrier
- Water Quality: 2013
- Piping Plover Monitoring at Napatree: 2013
- Project Limulus Horseshoe Crab Surveys at Napatree: 2013
- Visitor Activity on Napatree: 2013
- Shorebird Disturbance on the Napatree Lagoon: 2013
- Camera Trap Reconnaissance of Wildlife in the Fort Mansfield Shrublands: Winter/Spring Sampling: 2013
- Notable Sightings of fauna and flora at Napatree: 2013

The intention of this first State of Napatree Report (SoN) is to form a permanent record of the important scientific and educational work being performed at Napatree. Please click on the Conservancy website for details. [CBB/JS]

MEMBERSHIP FORM

The Watch Hill Conservancy is a nonprofit organization. Your membership supports the protection of the natural and cultural resources of Watch Hill, a variety of programs, and educational publications, including this newsletter.

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THE WATCH HILL CONSERVANCY 222 Watch Hill Road Watch Hill, R.I. 02891

Please include names of family members 18 and under. If you are making gifts of memberships, please include the names and addresses of those to receive these gifts.



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Critter Corner: Channeled Whelk

Investigator kids love to head out during low tide to dig in the sand, mud, and shallow water to see what kinds of shelled creatures we can find. These animals, called mollusks, have soft bodies that are usually covered with some type of hard shell. Mollusks actually make up about one fourth of all marine animals in the ocean. They include quahogs, soft shell clams, and one particularly interesting creature we found in our explorations: the channeled whelk.

According to barnegatshellfish.org, whelks are a kind of marine snail that feed on both live and dead animal tissue. Channeled whelks like the kind of sandy bottom that we have on the bay side of Napatree, and the ones we found pictured here were near the first breakwater. Whelks travel along the bottom looking for food. They move using a muscle referred to as a "foot", and hunt for food using their "nose", or proboscis. When a whelk sniffs out the water flowing in and out of a clam, it will dig down in the sand to find its meal!





Sea Monsters on Napatree!

Here's a question: what has seaweed tentacles, a driftwood head, and likes soda cans? Give up? It's a sea monster! Well, sort of.





Every year, the Napatree Investigator program celebrates its last week with a scavenger hunt. Naturalists Steve, Hugh, and Jessica come up with a list of items for our Investigators to look for on the beach. They range from pretty easy items (a white rock, a seagull) to more challenging (a clamworm, a blue crab). When there are enough kids, we split into teams and have a competition to see who can find the most items.

When we're done, we take any non-living items we've found (live items are always returned unharmed) and make our very own sea monsters! There's always a lively discussion of what the animal will be, which materials to use, and what the animal will eat. Somehow the crew comes up with animals that you won't find anywhere but in an Investigator's imagination. When each team is done, we read off our list of what items we found, and then give each other

And speaking of wrapping up, it's time to get back on the sands of Napatree! Hope you learned something new from this issue. Keep your eyes open on the beach and be sure to tell us about what you found! Until next time, see you on the beach!





Photos by Hugh Markey

wave energy through its angled construction and the gaps between the rocks. However, it deflects wave energy to either side, increasing erosion around the revetment by potentially increasing beach loss on neighboring properties." In contrast to the stone revetment work on the Great Bluff, the existing sheet metal and concrete bulkhead sea wall in Watch Hill harbor creates a hard vertical surface, deflecting wave energy back into the harbor, a situation that has impacts upon safe boating and the ecology of the harbor. An angled seawall that absorbs wave energy would have fewer negative impacts.

Sea level rise brings with it concerns for buildings located within flood hazard zones. While rebuilding the beach and related commercial uses at Misquamicut following Hurricane Sandy has been the primary focus of the Town, of more importance in the long term may in fact be how Watch Hill's Bay Street and the Village are retrofitted to cope with sea level rise and major storm events. Can the historical character of the area and its contribution to the local economy be retained and enhanced in the face of new building code and flood hazard insurance requirements to minimize storm surge damage?

Nowhere is this new code-driven design paradigm more apparent than at Larkin Square this winter, where a new commercial building is under construction to replace one heavily damaged by Hurricane Sandy. Permitted under a Town of Westerly emergency regulation to encourage rebuilding, the new structure, located within the interior court of the Larkin Square complex, will sit high above the ground on tall concrete piers. Meeting the new flood code requirements, this addition to the Bay Street commercial area will have its first floor above the base flood elevation, which is well above street level. Because it is new construction, the ground floor at street level cannot be used for either commercial or residential purposes under the Town's building codes.

In fact, future new buildings on Bay Street that lie within the flood hazard zone will have to comply with the same flood regulations. Likewise, buildings that have either been damaged over 50% of their value, or are to be renovated to over 50% of their value, must comply. This is known as the "50% rule."

Rather than losing ground level commercial spaces, developers may opt to build new buildings which are "flood-proofed", not unlike the ground floor of the relatively new Waldo-Hennessey building at the south end of Bay Street diagonally across from the Merry-Go-Round. This building's glazed ground level storefronts can be sealed off from storm surge damage with protective metal shields which slide into tracks at the ceiling and ground level to seal the building from water intrusion, rendering the building watertight. Flood-proofing may allow for first floor commercial use, but it does require a substantial upgrade of any existing building to accomplish, and may be cost-effective only for new buildings, not renovations of existing buildings.

Only those buildings which have been determined to be "contributing" historic buildings within the National Register-listed Watch Hill Historic District are exempt from the 50% rule, provided that the renovation proposed does not destroy their historic or architectural integrity. This is the new design model for Bay Street. It has a direct impact upon the viability of the street as a traditional commercial district with street level store fronts.

What does this mean for Bay Street's future? Luckily there are contributing historic buildings on Bay Street. These can be renovated without losing their street level commercial retail spaces.

However, new buildings, or significant renovations of non-historic buildings, may not have street-level commercial spaces or storefronts, unless they are "flood-proofed," a costly proposition, perhaps too costly given the current seasonal nature of commercial activity on Bay Street.



Photo by Richard C. Young



On the plus side, as a result of the Town of Westerly's prohibition on commercial use of new ground floor spaces in flood hazard areas in new construction or in substantial rehabs, there is likely to be more interest in preserving the historic buildings on Bay Street. This is key to retaining the character of the street.

However, on the negative side, when non-historic properties fall into severe disrepair, their rehabilitation could trigger the 50% rule, requiring new ground level code-driven construction and use that would render them dysfunctional within a traditional historic main street setting such as Bay Street. Likewise, a catastrophic fire could create a situation that would prevent rebuilding with ground level commercial spaces, spelling an end to the village as we know it and any hope for revival. Once existing buildings are totally removed by demolition, storm surge, or fire, replacement buildings will have to meet the flood codes. What would Bay Street be without commercial spaces and storefronts at street level?

Can the look and feel of Bay Street be preserved and enhanced within this new flood code-driven environment and the threat of sea level rise? Certainly planning for the care and protection of the area is essential, such as planning to improve the sea wall to better hold back flood waters. The Conservancy's Bay Street utility project will decrease the potential of catastrophic fires by improving electrical service, burying transformers prone to arcing and explosion, and removing overhead wires, which hamper effective fire-fighting. Attention to improving the sea wall could ease the impact of coastal flooding and provide some protection, especially to Fort Road, Larkin Square and the areas at the north end of Bay Street. These efforts take a lot of time; planning, preparing for, and accommodating sea level rise must now be a high priority. [RCY]

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Napatree Ospreys

Beach walkers strolling on Napatree Point frequently inquire whether the birds on the nesting platform are eagles. On the top of a high pole sits a nest constructed of sticks, leaves and unfortunately, trash. This large structure undergoes extensive renovations in the spring when its summer residents, the ospreys, return for the season.

Adult ospreys mate for life but separate during migration and wintering; they re-unite in the spring to re-build their nest and begin a new family. By April, the previous year's pair returns from their wintering grounds in Central or South America and can be seen carrying very large sticks to repair damage from winter storms. The nest, which can be three feet deep, is kept clean by the adults who remove fish carcasses and other debris.

The ospreys' backs and wings are brown with white underneath. They are about two feet long and have a wingspan of up to six feet! An easy identifier is the dark mask across the eyes and the loud, sharp whistles people hear when a nesting bird warns they are getting uncomfortably close.

These spectacular raptors suffered a decline in nest sites of 98.5% in the late 1960s because of the use of DDT; by 1976 they were listed as an Endangered Species. Their numbers are improving, but we monitor their activity and report to RI Audubon and DEM bimonthly.

Ospreys are also referred to as "fish hawks"; their diet is almost exclusively fish. Their feet have small barbs on their talons and a reversible toe to help capture slippery prey. Ospreys have three forward-facing toes and one rear-facing toe. Like owls, ospreys can reverse one front toe when carrying prey to ensure a firm grip.

The osprey possesses the ability to detect a fish from 30' to 130' above the water. They hover over their target before diving and may totally submerge during capture. The osprey will surface and fly away with the fish head first for a streamlined flight.

Ospreys, which live about seven to ten years, don't mate until they are at least three or four years old. They will lay two to four eggs, although generally two chicks are produced. Incubation is primarily the female's function, although both parents will share the responsibility and the male will hunt almost continuously for the family.

After five or six weeks, the eggs hatch and eventually the chicks will be large enough to be observed from the beach as they peek over the edge of the nest. The chicks fledge (become capable of flight) at about two months old. This writer watched as a chick clumsily flapped its large wings, striking the adult repeatedly over its head and back. Tired, the chick left its wing resting on the parent who patiently tolerated it.

The chicks will stand at the edge of the nest, flapping their wings into the wind to build up their strength and then begin to fly two or three feet up off the nest, practicing for the big take-off.

Once they are capable of flight, the chicks will totally depend on both parents for food until they are ready to migrate in August or September and the cycle begins anew. [JS]

Editor's Note: The ospreys on Napatree are not the only pair on Conservancy property. Another pair resides on Taylor Island in the Pawcatuck, a gift to the Conservancy from the Blasberg family.



Photo by Janice Sas



Photo by Janice Sas

Property Acquisition

A very significant property transfer has taken place on Bay Street with the October 2013 purchase by WH Properties, Inc. (a Royce corporation) of the 1.5-acre parcel on which the Watch Hill Motor Court is located. Plans have yet to be determined, but the transaction assures that this key property, fronting on Bay Street and Plimpton Road, will be developed in a manner respecting the historic architectural character of the Village. The property was formerly the site of the Plimpton House hotel.

"Watch Hill: Portrait of a New England Seaside Village" Documentary film scheduled to air on Rhode Island PBS on March 6

A noted Rhode Island producer has completed a video documentary based on Chaplin B. Barnes' history of Watch Hill, "Watch Hill Through Time", published by the Conservancy in 2005. The video is intended to be a companion piece to the book and to be available across multiple platforms and accessible to local community groups and schools.

The producer is Jim Karpeichik, Creative Director of Ocean State Video, Inc., who has had over 25 years of experience with video production. His work has appeared on NBC Nightly News, Discovery Channel, PBS, the History Channel, ESPN, TNT, Fox Sports Network, CBC, CSPAN and numerous other television stations across the country, including WJAR in Providence, where he worked for 14 years, nine as Chief Photographer. He has won 15 New England Emmy awards for producing, videography, and editing.

Karpeichik and team producer Betty-Jo Cugini have recently collaborated on another local film on the history of Westerly Granite, which is being used in the Westerly Schools as a companion piece to the book "Built from Stone: The Westerly Granite Story".

The new Watch Hill Documentary will be aired by Rhode Island PBS on Thursday, March 6 at 8:30 p.m. [CBB]



The Investigator Rides Again!

It's another season on Napatree for our intrepid group of Investigators! What's one new thing you learned about the marine environment recently? Investigator Program Naturalists Steve, Jessica, and Hugh, along with our ever-enthusiastic crowds of kids, made lots of discoveries on the beach last summer, and we'll talk about a few of them here. To get you started, here are a few questions to think about:

- A. When does eel grass wear clothes?
- B. Do some shellfish have noses?
- C. What kind of animal is made of drift wood, seaweed, and a soda can?

Give up? Read on to find the answers!

When does eel grass wear clothes?

One of the many neat things Investigators found last summer were pieces of eel grass covered with a kind of brownish goo. A closer look showed lots of tiny bumps on this brown stuff, which made us wonder whether this was just one organism or many. Using our handy field guides, we learned that the brownish covering is called a **tunicate**.

Tunicates are colonies of tiny animals, each of which are only 3/16" (5mm.) long. They're distant relatives of fish, mammals, and other bony animals. The brownish goo is a covering that coats the outside of the creature, just like a "tunic" was a piece of clothing that covered humans in ancient times. In fact, the word "tunicate" comes from "tunic"! Tunicates are **filter feeders**; creatures that suck in water through a tube, digest microscopic foods mixed with the water, and then spit it back out through another tube.

There are good things and bad things about tunicates. The bad thing has to do with the fact that it's an **invasive species**. Scientists think tunicates may have arrived from other parts of the world after accidentally being carried by ships. There's some indication that tunicate colonies may damage the eel grass that they attach to. That becomes a problem

because eel grass is an important part of the ecosystem.

On the other hand, research is being done on the tunicate's talent for healing itself. Scientists want to see how they do that, in the hopes that one day people may be able to do the same. Other research is looking at tunicates as a source of food, and even as fuel! So is the tunicate good or bad? Hard to say, but one thing Investigators do know: it's another interesting creature on Napatree!



Photos by Hugh Mark