

Beads & String

A Maine Island Pilgrimage
by Marnie Reed Crowell and Ann Flewelling

CHAPTER II ~ April Settlement Quarry

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This morning the honking of geese serenaded me before I was quite awake, and then the



trilling of juncos. Fox sparrows, looking huge and ruddy, scratched energetically under the feeder in that distinctive two-footed gesture of theirs. Ann says she heard geese this morning as she was gearing up to come over for our expedition. The evening of the very day I e-mailed her about encountering the woodcock, one stopped her on her road.

E-mails from friends all over the peninsula reported robins in the lawn, juncos in the spruces, and geese in the pewter skies. It is emotionally confusing to think of that great race up the continent,

so welcome from our point of view, perhaps desperate from the birds' eye view.

Just now the town roads have a new traffic. This is the season when most fishermen put their boats back in the water. Going overboard they call it. Boat names also often exhibit a similar black humor. And this is mud season on dirt roads. I am very fond of unpaved roads. There are many ecological reasons why they are kinder on our environment – questions of pavement reflecting heat and facilitating toxic run off to name just two of the more obvious. However, just now, it is hard to cheer for mud.

The unpaved road up to the quarry in Oceanville is a well-built exception. It cannot be called mud, not really. It is granite, the specific form that geologists call Stonington Granite and the kitchen countertop trade more generally refers to as Deer Isle Granite. The road from the head of the quarry face was built for the trucks that worked the Settlement Quarry. These days the granite quarried here goes off-island in huge blocks sent to Rhode Island or Canada to be cut. The hulks of cutting sheds here now stand empty. Stonington at the height of the quarrying operations probably had a population twice the size of what it has today.

I remember when Mary McGuire served as speaker at the dedication of the Settlement Quarry Preserve, a most satisfying moment for her. Mary McGuire, dainty little woman now just one year short of her hundredth birthday, perky in her US Navy veteran's cap, has long been a fixture at the Island Memorial Day observances. In World War II she served in Naval Intelligence. With a BA from University of Maine and a PhD from Columbia, and years on the faculty at Chatham College in Pittsburgh, this retired Stonington schoolteacher is typical of the kind of Islander who is intelligent, well-read, and strong in support of local causes.

Mary's father Frank McGuire moved to Deer Isle in 1903 to manage the cutting shed at the quarry. It's hard to picture, but at the turn of the century the state of Maine had some 55 granite quarries in operation. Stonington was "home" to perhaps 2,000 men who worked in the quarries on Crotch Island, Green Island, Moose Island, St. Helena, and Devil Island. The Marsh Settlement quarry eventually became known as Settlement Quarry.



Fish Creek

On matted salt hay carpet
pressed by a wan spring sun

black velvet spiders and I,
together
drink in the golden topaz
beauty,

a winter's brew of tannin tea
melting down from inland
woods.

A cold salt breeze sways the
tree tops,
gaunt, worn-looking against a
young spring sky

but you wouldn't say that they
were dancing,
those tall dark trees, grey snow
forgotten in their shade.

A race of sun-sparks rides the
wind—
a school of spirit fish dimpling
the stream

but the concrete culvert here
looks placed too high
for swarms of smelt to hurl
themselves

come the moonlight, back to
the sheltered gravels
where they first saw the spruce
tops dance.

The last fish will come here
from the sea,
drawn by sweet home-stream
taste

just as my dog and I first
smelled the bay
on each return to island, home.

Some of the larger buildings around town at one time were rooming houses boarding some of these workers. I've even heard that some workers lodged themselves camping under nearby granite ledges, not such a different story from today's service industry workers trying to make do with camp ground accommodations.

In 1922 Frank McGuire and his brothers James and Thomas purchased Crotch Island, and later the Settlement Quarry. The names of Mary's brothers Francis (Nick), Thomas, and Robert are memorialized on granite benches overlooking the quarry. Like any risky and dangerous extractive process, the quarry has had a colorful history, with both triumphs and heartbreak, boom and bust. The benches symbolize putting our past in perspective and the granite industry literally and figuratively underlies much of our history.

Once you learn the look of "our" Deer Isle granite, it's an interesting challenge to see where you can spot it. It is found in such cities as Boston and Philadelphia and New York, in the Manhattan Bridge piers, the Triboro Bridge, George Washington Bridge, the "Deer Isle Pink" in Grand Central Terminal in New York, Rockefeller Center skating rink, The Museum of Fine Arts in Boston, and Bancroft Hall at the US Naval Academy. Seams of granite that were prone to fracture in undesirable ways were blamed for the demise of this Settlement quarry. Granite from Crotch Island was landed here and packaged for shipment by truck to the cemetery in Arlington as part of the John F. Kennedy Memorial.

Granite blocks now ride in roped and lonely grandeur atop flat bed trucks booming down our roads. I try not to be following too closely when they make their way over the arching bridge off island. They make the bridge shudder. The granite blocks, the size of small tool sheds, have been quarried these days out at Crotch Island and landed at the wharf here at the foot of the Oceanville quarry for transfer to the trucks which carry the granite away to be polished and fashioned into granite counter tops.

We no longer pave our cities' roads with granite paving blocks. We make our buildings with cement and steel and concrete. Economic considerations today even allow us to ship granite quarried and cut in China for decorating our gardens. Environmentally obscene, but far from the only way in which economic forces work at cross purposes with environmental health.

Besides the horrifying number of schooners filled with paving blocks which used to get caught in storms and sunk in the days of windjammer shipping, granite also had other ways of killing men. I knew a few old quarry workers here who slowly died of silicosis, granite dust in their lungs. They were the lucky ones. Others died faster, none more dramatically than the unfortunate victims of blasting and crushing accidents. The preserve here is a lovely place, but it is also a monument to these workers. Perhaps it is not such a coincidence after all that local pronunciation rhymes 'quarry' with 'worry'.

Ann and I today have brought with us Ken's hand held GPS— global positioning system — unit to see if we can find the geocache described on the web page. Indeed as we look at the dial we feel like we are playing the old fashioned game of Now you're getting warmer, warmer, cold!

According to the arrow guiding us along the map, the geocache is not hidden in the dynamite storage ruin, as I thought it might be. These stone remnants are not only historically interesting, they look as if they might be a specially-commissioned art work. The cache is not hidden in the sunny seat where we like to bring winter picnics. This seat is essentially a large crevice in the granite, around three sides of which has been wedged a bench. The granite walls act like a reflector oven. A large granite block in the center functions as picnic table.

The view here from the head of the quarry is splendid. Swans Island and the blue of Duck Harbor Mountain on Isle au Haut decorate the horizon. The ducks which gave their name are the eiders. When the birds were flightless in molt they were herded into the cove there. The duck drives provided welcome food for most frugal Yankee diets here.

We enjoy the picture sign here which labels all the islands spread before us. It is quite a challenge to match all of them, stacked and hiding one another as they are.

Ann is much taken with the light on the blocks of granite and the traces of drilled cores for blasting. We can see where the granite cracked in layers parallel to the surface as if breathing a huge sigh of relief when the overlying rock had been gradually eroded and glacially scoured away. These horizontal joint sets were used by quarrymen. In addition to the natural sheeting joints themselves, we see where superheated water forced a mineral soup into cracks in what was a paroxysm of intrusions. Bands of color resulted where the minerals slowly cooled.

Here at the quarry there are beautiful bands of fine-grained pink stuff a label tells us is called aplite. We recall such pink and also white quartz in jagged lines in the salmon pink granite of the cove at the Tennis Preserve that Asbornsens tell us is aptly called The Oven. The granite itself is an interesting pudding, a mixture that boiled up from deep within, some 360 million years ago. By definition, granite is this mixture. The recipe is 1 Cup of pink feldspar, 1 Cup white feldspar, and 1 Cup gray quartz. Mix in tiny flecks of black mica called biotite, like currants in a pudding. Cool. Melt the finest granite grains and squirt this aplite sauce into any cracks remaining after the pudding has set.

You can "read" what amounts to instructions for how long to cook the pudding, and at what temperature. The minerals of this molten magma crystallize out at different melting points. During a long uninterrupted cooling period, the feldspars may "grow" large. Since the granite was at one time five or ten miles down, one can also make inferences about how deep the crystals were: the deeper the cooler; the cooler the larger the crystals of feldspar. The pink and the white shapes may suggest anything from roses to gull droppings; the black bits look like cockroaches, or whatever else your fancy dictates. Very Taoist.



April Flurry

We're ready
to take the maple buckets down
when in some great pillow fight
big flakes of sugar snow
whirl over us
in April madness.

I heard robins in the yard,
behind the bank,
at the Post Office and the dump:
robins robins hawks
song sparrows
robins robins redwings.
Yesterday they all came back.

We hurl our expectations
immoderately
toward spring
and laugh away
the cold and grey.

We cross a bare stretch of granite with a line of cairns gently steering us to avoid trampling the fragile vegetation. Even without being a botanist, you get the feeling that this is not unlike a mountain top. The tiny plants here bake in summer, freeze in winter, and get scoured by the winds. I suppose the breeze is even salty here. We turn into the woods to follow the trail high along Webb Cove still checking our GPS.

"Oops," says Ann. We've apparently gone too far. The cache is back there somewhere."

We back track. Standing on the rim of the quarry I speculate that this site may not have been placed by Beckett.

"Why do you say that?"

"I saw on the web page that Becket refers to her two daughters. That means she's a mom. What mom would direct her kids this close to the quarry edge?"

As I'm telling Ann about the dance performance held here a few summers back, Ann whoops in triumph. She has found the cache. As before, the plastic box contains a small pad of paper, and a whole collection of small items of no economic value.

"This is really brilliant," Ann says, signing us in. "There are several family messages here. People write that they never would have found this preserve if they had not looked on the web before they left for their vacation here on the Island. This one says, 'I really did not know what the stone in Stonington was. Thank you for saving and opening the quarry in such a welcoming and instructive way.' That's quite nice."

We repack the box and replace it in its hiding place. Pausing once more to enjoy the view, I remember I was saying something about the dance performance here.

"This place is so reminiscent of a Greek amphitheater that the drama and dance folks are delighted. They have already had a very successful dance performance here a couple summers back. And an Opera House Arts group including Pilobolus dancers helped stage another performance, a sort of dress rehearsal for what they're calling Quarryography, here.



First Osprey, April 16

Pandion haliaetus carolinensis

Osprey, who dares
plunder the eagle and wins
we pause every time to watch
your casual crook-winged beat
up the sky
mackerel gleaming in the talons
of
your nonchalance.
As my son once explained to me
you have to be born to be cool.

There was nothing casual about
the line gale that yesterday
screamed through here
shaking our bridge, plucking it
like a lyre
licking hungry at the causeway
battering cowering houses with
waves of such awe that fishing
boats stayed on their moorings,
every
one.
Not just their women, but sea-
crusted men
spent the hours stealing
glances over their shoulder.
We crept to our beds, shutting
windows to keep the deluge out,
slept fitfully, wholly unable to
block the ocean's roar
and the answering grinding
moan of beach rocks in the
dark.

Born cloudy, cool of its own sort
breezy morning finds us, all
over the island
busying ourselves, packing
lunches
doing up breakfast dishes,
gossiping about power outages
pausing to survey all the gear
going with us.

I imagine I hear ospreys
calling to each other
that unmistakable piercing
whistle
I want so fiercely that I step
outside
where they are circling
overhead
calling, soaring
in signature
arrival.

I love it that the Pilobolus Dance Company takes its name from a mold, an organism which has the ability to "sling-shot" its black spores toward sunlight at amazing velocity. The dancers are all wonderfully athletic. You can imagine how lovely those lean bodies look against the rough stones."

"I hear they use a back hoe in their ballet."

"Yes, Rick Weed has a big excavator which hauls up a giant puppet made of cable. He really gets into working the big machine with the dancers. Did you know there were such things as Back Hoe rodeos and Rick has been in the one for Maine?"

"We missed the performance that was rained out," says Ann. "I'll have to be sure and get that on our calendar." She takes a last long look at the open quarry basin with its great benches and blocks before we leave it to head into the woods. "Some night I'd like to see the stars from here."

"There ought to be very few lights to interfere," I say. "Awfully dark for photographs I would think," I tease. "It's a wonder nobody ever broke their neck here in the era when this was a teen party spot. I find it very satisfying that this is no longer a place where broken beer bottles the morning remind us how narrowly tragedy sometimes has been avoided."

I consider the human dramas for which this place has provided the stage setting. "What an opera these stones could sing."

The establishment of Settlement Quarry as a preserve open to the public is a tale akin to both grand opera and melodrama. Just as there was no agreement among the owners and workers at the granite quarries, among the ship captains their crews, between the hotel owners and landlords and the town's tradesmen and the farmers about what the destiny of Stonington ought to be, so too in our time, there was little agreement in 1996 over what the fate of the Settlement quarry lands ought to be.

The Trust for Public Lands, a national non-profit organization, worked with the land trust to purchase the Quarry property. In addition to a few lots for residential and commercial enterprises, a two-acre public deep water boat launching ramp on Webb Cove was offered to the town with the state Bureau of Parks and Recreation agreeing to pay most of the purchase price.

The town voted it down. The corporate world retirees from across the cove had their agenda; the young fleece-clad recreation enthusiasts in their kayaks had their ideas; the fishermen in Stonington had their own ideas about making sea access available to folks from off-Island. Not enough attention was paid to soliciting opinions from all or apprising everyone in town of the nature of the proposed transactions. No matter how well-intentioned the project, suspicions of self-interest and misinformation swirled in higher and higher tides and threatened to engulf all.

I know from attending national land trust gatherings that ferreting out the stories behind preserves and conservation easements across the country is apt to yield decidedly mixed conclusions. Greed, ignorance, short-sightedness, power struggles: we hear it all. Parents who do not trust their children, siblings who will do anything to keep family land out the hands of one another, divorce settlements turned nasty. Because what I know of our friends here does not much match that profile, I must use Ann as a sounding board to keep my descriptions of folks here realistic. As a trained clinical psychologist she offers another perspective on family dynamics. We both, however, have faith in people, and in our ability to learn from our mistakes.

We make our way down the trail winding through the lower reaches of the quarry. Only traces remain of the cables, winches, derricks, cranes, coal-fired boilers and even a rail way that once worked here. It must have been an impressive sight in its heyday. Ann asks me to explain just what is the difference between so-called Stonington granite and Deer Isle granite. Oh, my.

"Ann," I laugh, "if it's hard for people who don't come from this Island to understand why



Patriot's Day

Spring, finally, comes Downeast
 in what seems unseemly haste.
 Day before yesterday, we
 shoveled snow, and next
 the herons have flown into
 Haskell's Cove,
 Neva saw bees crazy at the
 crocuses by her granite step,
 tree swallows by the post office
 know the flies are out again.
 Mahogany twists of skunk
 cabbage poke up under the
 alders
 where last night the
 salamanders writhed
 and a first butterfly took wing
 this morning.
 It must have been yesterday
 afternoon
 a garter snake almost made it
 across the road;
 you can hear spring peepers
 singing in the center of the
 island
 and they're getting elvers in
 the traps over to Greenlaw's
 Cove.
 Eider ducks in pairs fly low
 across the bay.
 Smoke rising at all compass
 points signals burning for
 blueberries.
 I say "carpe diem" to my dishes
 in the sink
 and hurry out to seize the
 sunshine,
 to poke withered pea seeds into
 barely yielding ground.
 It's what we do here in New
 England
 April 19, the anniversary of the
 day the redcoats
 and the locals lobbed a shot
 heard round the world,
 perhaps an odd observance,
 but we have to start early
 if we're going to have peas for
 the Fourth,
 to celebrate a nation of our
 own.

a twelve by twelve rock needs two town governments, just let me tell you about the geology here. Perhaps I should say t'was ever thus."

According to Roger Hooke, a geologist who retired to the Island, there are three facies, or varieties, of granite recognized here. All three are called Stonington granite or Deer Isle granite, depending on which geologist is talking. They are all called Deer Isle Granite in marketing too.

Roger would probably basically agree with my 'pudding' analogy, but he would want to talk more about the 'oven' in which it was cooked, the magma chamber. The Settlement Quarry and Crotch Island facies formed near the middle and top of the magma chamber, respectively. They are finer grained and have more white feldspar. Some of the pink feldspar grains rimmed with white feldspar reflect circulation of the grains in the magma chamber. The bright salmon-color pink feldspar grains that are found over at Oak Point—the Oak Point facies— those are thought to have accumulated at the bottom of the magma chamber. Darker crumbs at the bottom, light custard in the middle, whipped cream on top. Picture some of the Island's famous grapenuts puddings, the ones flipped with the crumbs on the bottom."

Ann looks a bit puzzled. She lives in Sedgwick, across the Reach, where grapenuts pudding for the past fifty years maybe hasn't been as big as it is here.

"The granite from Sedgwick, however, is all grays, none of the pinks. When you find gray granite cobbles on the beach, you can be pretty sure they are from over the bridge."

I add "All the granite is thought to have intruded into the volcanoclastic Castine and the Ellsworth schists that make up Little Deer and the northern part of the town of Deer Isle."

Ann smiles. "Deer Isle rocks! The Castine Volcanics and the Ellsworth Schists vs. the Deer Isle and Stonington Granites. Sounds like the state basketball championship tournaments."

"The Continental Collision Classic!"

Although Ann moved back to Maine not that many years ago, she was born and raised in Maine. However, one would only have to have experienced a single winter here to be aware of the high school basketball mania which grips the entire state each year.

Ellsworth schist makes up the northwestern third of Deer Isle. These rocks are metamorphosed sediments, various shades of greenish-gray. They were once layers of sediments at the bottom of what geologists call the Iapetus Sea. They usually show wonderfully interesting folds, often with sparkles of platy micas gleaming in the layers.

Allen Myers, husband of our island Congregational minister, is himself an ordained minister as well as being a geologist specializing in oceanography. He calls himself a 'geologist'. He gives a wonderful walk for Island Heritage Trust at the Tennis Preserve in which he most graphically describes the formation of the Ellsworth schists when the Iapetus sea floor laid down the sediments, which were then squeezed and thrown up when the continental plates collided. Picture a ring of volcanoes squirting up at the edge of all this action. Then for a hundred million years there was no ocean here. Until the Triassic.

I relish the drama, in a speeded-up version which I can barely comprehend, of all those hydrothermal vents sizzling around us. Allen described continental glaciers as moving like cold honey poured onto a table somewhere west of Hudson's Bay. As they oozed down to the coast here, the bottom was shuffling along with the movement of the plates. The preexisting ancient valley of the Penobscot River was flushed. The soil was removed, as well as the layer of rotten rock, scraping right down to bedrock in some places. In these rock deposits of the Ellsworth schists of Deer Isle, the town, men hoped to find copper and to mine silver, from what are probably the remnants of the vents. And there's even a rare marble bed on the northern part of Deer Isle, metamorphosed limestone.

"The oldest rocks are in Deer Isle."

"Not Stonington?"

"Doesn't that sound as if it's some sort of social comment? The sense of rivalry between the two towns is very strong. People our age remember when there were two high schools, two basketball teams. And formerly, the sea captains mostly lived in Deer Isle, the quarrymen in Stonington. The sea captains shipped out every spring for a good part of a year or maybe even more. They were sort of emigrants. The quarry workers were mostly immigrants, Swedes, Scots, Irish, and Italians. The newest Stonington immigrants now are the ones who have money. They come from Texas, the South, England, wherever."

"And they too are changing the character of the place."

"You bet. These incoming artists and the Summer People and the tourists are certainly culturally distinct, identifiable by their accent and their clothing. The Island is still ethnically pretty homogenous, white, but we are getting a bit more diverse."

"Stonington had a sort of outlaw reputation. In fact, the whole Island does."

Ann says, "Would-be newcomers can find that intimidating."

I laugh. "Yes, and perhaps some of us who live here don't try very hard to discourage that image. We've got enough people here. The other day we watched John Steed, the Opera House manager, and a crew filming a documentary about our so-called 'burners' who make those tire tracks on the roads. They're like graffiti artists. They lay rubber by standing on the brake and flooring the accelerator at the same time. A big puff of blue smoke, a noisy squeal. Interesting marks, a real calligraphy, and a bit of a class statement. I'm not sure how they know they are not going to meet someone coming the other way."

"It is worth your life to tackle the Island roads, the way the pick-up trucks tear around," comments Ann.

"It has been like that ever since we've been here. The new Stonington now is really trying actively to steer its destiny. Working town, fishing community, or row of seasonal art galleries, boarded up and empty all winter. What combination do we want? It will be interesting to see what forces shape the Island next. Whatever comes, it will probably affect the whole Island. What started as territorial rivalry, differences based on how far you could walk or ride or sleigh, or where you fished, those distinctions are now irrelevant in the face of the current round of changes."

"The glacier scours all," Ann says, stopping to photograph a particularly handsome pattern in the rocks. She asks from behind the lens, "Can you tell the various rocks by looks?"

I laugh. "Well, Allen kept asking me on that walk to identify different kinds of lichen on the Tennis trail. I finally had to tell him that not only did many not have common names, but also you might well not tell the species just by looking. One does the analysis under a microscope and by chemical tests. Or one fakes it. He says it's the same for telling the rocks apart with accuracy. He calls the urge to give some answer of authority the 'male answer syndrome' or the 'science teacher syndrome'."

We laugh.

"But there is some basic sorting you can do by eye. There are only at most a half dozen types of bedrock exposed here, depending on how you count them. There are the grey-and-pink granites and the salmon-pink Oak point ones. All that is grayish green and dark is not Ellsworth schist but that's good first guess, particularly if the rock is clearly foliated, wavy, wrinkled, folded. The big boulder in the middle of the Tennis Oven cove is interesting because you can see that it has had pebbles tossed into it. Then in the collision of the continents the layers were subjected to stress — folded, squeezed, pulled — and the pebbles were squashed, smeared, deformed. It's called a pudding stone, and you probably can tell those by looking."



Spring Rain

To hear the clouds,
join birds at dawn

and feel the drops
falling from spruce,

the space between thought,
the sound between waves.

Another recognizable look is the very distinctive, flinty, greenish rock speckled with white felsite from which many Indian arrowheads and tools are made. Artifacts in the middens here on the island are made from rock of Mt. Kineo, the Moosehead Lake region. That would have been brought here either as the raw stuff transported by the glacier, or in trade. It weathers to a grayish white, but it's still a distinct speckled look."



Seeing Clearly

New to this community, my first wintering, resident now as you can read from my muddy license plate, sweeping storm debris from my front walk in the newness of April
I assess the list of things I had not known.
Through red haze of maple flowers and plump tree buds on our island of an evening now the view is longer than in summer.
I do not still see the ski slope lights across the bay nor yet the house lights on North Haven's shore, but we do have t-bone steak and The New York Times in the grocery.

I am too polite to tell you that we got along with the Bangor Daily and Island AdVantage, when we didn't see yogurt till Fifth of July.
Summer folk wintering over, person from away, PFA's whose huge houses invade our zip codes, your money votes in school and town meetings.
You ask when we will treat you like you live here: When you act like it.
Please look at me. I smile back as an equal.
Listen closely: sometimes what we islanders do not say is also very loud.

Roger is quite keen on what the family of serpentine rocks up at Pine Hill tell us. Darker grey coarse grained rocks with soapy green veinlets might be Pine Hill peridotites with serpentine, and the blacker green ones may be Torrey Pond Serpentinite from North Deer between Torrey Pond and Eggemoggin Reach. I can't tell the two. Geochemists can. The Torrey Pond rock's a black, medium-grained intrusive igneous rock, rich in iron and manganese, originally formed as a basalt at a spreading center on the sea floor. While still part of the sea floor, the hot fluids circulating through the original basalt altered much of it to serpentine. The white veins are probably asbestos, a fibrous form of serpentine."

Most of the Little Deer bedrock is Castine Volcanics. They can look just like the Ellsworth schists, but not as wavy. They're metamorphosed ash, tuff, and agglomerate— pebbles or even larger, spit out of volcanoes. Those volcanoes! Here! Five hundred million years ago. And then those granites intruded."

"And now it's PFAs!" chuckles Ann.

"So PFA doesn't really stand for Persons From Away; it's Petros From Away?" I say, detouring off the road back to the parking lot a short way to point out glacial polish and scratches to Ann. "Roger's main interest is glacial geology. Glacial till, which is a mixture of clay, silt, sand and gravel, covers much of the bedrock of Deer Isle. It was left by the ice sheet that advanced over Deer Isle about 30,000 years ago and lingered here for 14,000 years. The ice was about a mile thick over Deer Isle. Roger says that as ice moves across a landscape, it entrains rocks. Don't you just love that word, "entrains"? Like a sandpaper block, it grinds the entrained rocks against the underlying bedrock, leaving parallel scratches on the bedrock that reflect the direction of ice flow. See?"
The marks, like giant bear claw scratches, are quite evident on the granite.

"I love to look at the big boulders— what we used to call erratics, rocks from away, the ones which do not match most of our rocks here— and the smaller cobble stones on the beach, and guess where they came from. What I find really interesting about trying to read the beach rocks is that not only has the sea done its share of shaping, but rocks trapped in the moving glacial ice were themselves scratched in the process. Because these rocks could rotate, the scratches on them go in different directions. All this scratching and grinding produced a lot of fine sediment, and that's the matrix of the till."
"I enjoy looking at the boulder fields along side the highway as I drive from Blue Hill to here," Ann declares. "I like to try to picture lakes and moraines and ice sheets."

We, Ann and I, are both of an age when geology was not much taught — not to women and not in small schools at least — and most of what we thought we knew has been reinterpreted since the 1970s, when plate tectonics theories began to be accepted. You can almost guarantee that whatever you read in older books— even by so clear and fine a writer as John McPhee— is now being reinterpreted. It's all quite confusing, so geology interpretive walks here are always very popular.

"Well-drillers and town planners are both making use of all the geological mapping that Roger and his students and colleagues have been doing," I add. "I kid Roger that he loves to study not only what big sheets of ice do, but he's entranced by any big yellow earth mover."

"The boys and the toys," observes Ann. A former potter herself, she asks "Aren't there some good clay deposits here too, gift of the glaciers?"

"Yes, the Presumpscot formation, marine clays deposited as the ice retreated from Deer Isle. The weight of all that glacier depressed Earth's crust below sea level. When the ice margin stood at Eggemoggin Reach, Deer Isle was under nearly 200 feet of water. The Presumpscot is composed of large quantities of silt and clay— rock flour— produced by the grinding beneath the glacier. Then these fine particles were flushed out into the sea. The waves pick them up; the tides carry them back in, and in quiet coves they settle out. When the clay settles, it tends to stay put.

Locally the clay contains fossil shells, with some species in it now found only in colder waters further north and off Iceland. The Presumpscot is normally light gray, but where it is exposed at the surface it has oxidized to pale yellow brown."

"You know that bowl of forsythia I have on the desk? It is made from clay on our point." Ann tells me.

"Oh, I do envy you, not for the clay, but for the flowers. When my brother lived in Delaware I used to forbid him to call me on the phone in early April and use the 'f' word." Ann looks puzzled.

"Flowers!"

On all the walks I've been on, the conversation always gets around to global warming. Allen confesses that his wife Alice gets annoyed with him for his calm perspective on cycles of warm and cold, an attitude quite characteristic of all the geologists I know. We are most assuredly in another interglacial period, a temporary warming between colder periods. He concedes that for humans, to greatly accelerate the rate of changes is not a pleasant prospect. For Alice, and for me as biologist, such near-resignation is disconcerting. They think in terms of three hundred million or six hundred million years ago. All those zeros! We think in terms of this year's crop of bird nestlings, or the future of our own grandchildren, and theirs.

Oh, well. April is a challenging month here. It's a tease. One day we seem to have sweet sunny weather as nice what the radio tells of south of us, and the next day we seem plunged cruelly back in winter. Being near that great heat sink of ocean works to our disadvantage at this season. April is not Deer Isle's finest hour. Everyone seems to have flowers but us.

We walk down the old quarry road in companionable silence. Only a chickadee calls from time to time. It's the birds which have to be our consolation now. Perhaps it is just that the skies have been relatively quiet for the winter months that makes them seem so grand. Well, that's not fair to those wonderful winter ducks, most of whom are leaving us these days. Winter ducks are the best-kept secret of the Island, the one feature I did not expect when I changed my status from a seasonal inhabitant to full-fledged year-rounder. Clearly the richness of the winter waterfowl scene is a private treasure the Islanders keep for themselves.

Now that we are always nonchalantly scanning the skies for spring arrivals, I feel positively disloyal about it. I lie in bed each morning listening intently for some new bird song.

Mad April brings out the best and the worst in us.

Tonight is warm, raining like the tropics. We have been waiting for a night like this to go



out and observe a normally hidden world. At 8 PM, just as it is getting fully dark, we rendezvous. Our expedition this time requires our spouses, Ken and Charlie. Calling all hands to hold umbrellas and flashlights. We head once again to Oceanville, following the main road to Settlement Quarry.

We drive slowly, car windows cracked so we can hear those tiny frogs called spring peepers. At a swamp we pull over and listen. This is the marsh of the old Marsh Settlement. The occasional quacks which sound like ducks

are wood frogs. The peepers sound more like they're screaming than singing. Really deafening.

Where the road twists through the woods, the pavement is thick with strange shapes, almost like angle worms. Quite an unfamiliar silhouette in the headlights. There! Is that a salamander? Or a willow leaf, a green bean, or a cigar? One rears up its head and looks around like a very miniature dinosaur, black with yellow polka dots. We observe that when a salamander lowers its head, it is about to scoot, arrow-like, forward. Scoot? There is no hint of speed about these little creatures.

Ann and I hop out of the car and walk quietly toward a group of them. Hesitantly I pick up the salamander which seems to barely notice me. It feels silken smooth, strangely cool on my hand. What shall I do with it? Spotted salamanders are headed both ways across the road. Does that mean some have mated and are returning to the forest, while others are headed out to the pool? Do the car headlights confuse them? Or are they just not in a hurry?

Just then a car comes hissing by on the wet pavement. Horror! Yes, our headlights do reveal several now-squashed forms that so recently were salamanders. This is a conundrum. We are parked safely off the road so we do not alarm the passing traffic. If we were going to go out on the road to move the 'manders we should certainly have reflective vests and some warning system of flaggers up the road. Goodness, this could get complicated.

I put the salamander safely in the grass at the road edge, but there is no way we could make a difference here; the numbers are simply too great. While the salamander did not feel slimy like a fish, it may not be good to handle them. If you handle a live fish you risk destroying its protective anti-bacterial slime coat. Certainly after you have touched one salamander you could be in a position to transmit disease from one animal to the next. Maybe it's better not to touch them. But it's certainly not a good idea to let them get squashed. They will not move, even gently nudged with a stick. So, reluctantly, we leave them alone. Maybe another year we can organize a guard crossing patrol.

We sit quietly for a time in the rainy night, watching to see what the salamanders will do. At the side of the road, blotchy spathes of emerging skunk cabbage stand like miniature hooded figures in vigil. Do salamanders time their Big Night Out by the calendar date or by temperature or other factors? Do they all have some sort of built-in rain gauge? In my garden the crocuses have withered and the daffodils have just fully opened. Red maples are in bloom and wrens are back singing in the woods.

One after another the salamanders put their heads down and start to move like so many pencils, gliding forward, propelled by some unseen, mysterious force. I suppose it is their wide eyes that make salamanders look so unthreatening, gentle, trusting— and as I am being anthropomorphic— none too smart. Since salamanders may move quite a distance from the woody forest duff where they spend most of their life to the vernal pool where they breed, we may be looking at what amounts to the entire salamander population of the Settlement Quarry Preserve.

Ann manages to figure out what she needs to know about getting photos without drowning her camera or getting too much light. To get just the right angle she stretches out on the rainy pavement.

"Charlie, please move the light. Over here. OVER TO THE RIGHT. Oh, it's my own headlamp. Sorry."

Ken walks back to car to douse the headlights, leaving on the warning flashers. Out of the dark we hear him rather loudly, "Damn!" What did he do, bump into the side view mirror? Then comes a mournful "Oh damn, damn, damn. I stepped right on it."

We inspect a pool at the roadside with our flashlights and see what the text books call "a congress", referring to the sex life of salamanders. We can just get our umbrellas wedged in over the overhanging bare alder branches. The umbrella drips runoff onto Ann's back, but not her camera, so she is happy, except that it's awfully hard to figure out what to do about the reflection of the flash on the water.

Life List, April 25

My first-ever little Brown Elfin:
butterfly dropping like a flake
of leaf

into the edge of my vision
opening my path in the cool
afternoon,
brown, slowly slanting,
like a windsurfer letting down
the sail,
like a cat warming its tummy in
the wan sun.

Like a movie star, an Elfin is
much smaller
than I thought and so much
better-looking
than its picture. I'll never forget
our meeting
though I was too excited to ask
for his autograph or take his
picture.



Bird Whisper

Spring stirring above old snow
in the first warm days,
crows in the wood
holler and strut their space.
Blue Jay bugles its trickster note
loud across the melting groove
of winter's fade.

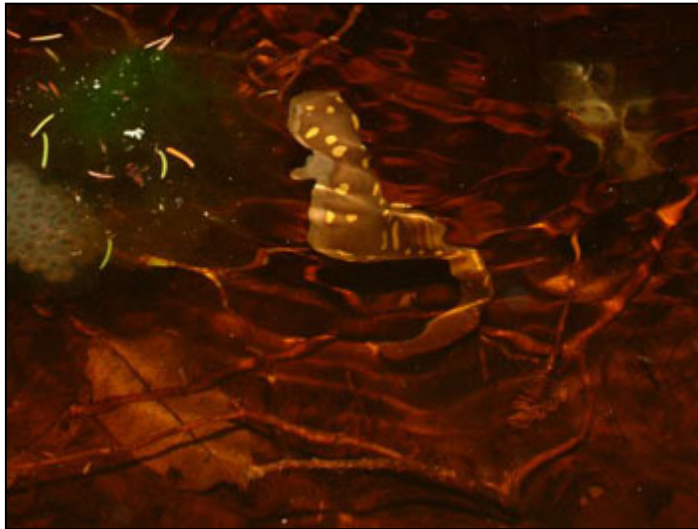
A soft staccato pulse
melting spruce to spruce,
shadows trilling with the hidden
intimacies of small birds,
a whisper of wings; unfamiliar
melody
cool in the dark like the small
birds
reveals that raucous dude, the
jay,
in thrall of a private life.

The males and the bigger ones that we think are the females are slithering over one another. From time to time one or another of the group dashes up to the surface, moving through the water with a very serpentine writhing to pop its head up. It appears to take a gulp of air, or maybe they are just taking a look around. They look like that faked photograph of the Nessie, the Loch Ness Monster.

According to the text books, the female takes a sperm packet and puts it into the pouch of her cloaca. The large salamander we watch hanging onto a submerged twig seems to be a female extruding a mass of eggs. They form a globe about the size of a golf ball, a globe made up of pea-sized spheres, each with a spot of life in them. She had better lay a lot since the traffic back on the road is squashing a fair number of salamanders.

Strictly speaking the vernal pools which make the ideal habitat for these nurseries are so shallow that they dry up more quickly than predators could mature in them. That leaves out fish and bullfrog tadpoles too since they need two full years to mature. I hope no misguided soul decides to bring bullfrogs to the Island.

Curious, we drive miles of wet country road. Sure enough, everywhere there is a low spot with alders or a pool on one side and forest on the other, there are "herds" of salamanders, swarming like migrating wildebeests in the Serengeti. The roads are popping like so much popcorn with salamanders and frogs of various species. What a night!



Vernal Congress

9:30 PM, April 26
I'm standing in the rain
watching
Ambystoma maculatum congress,
as they say with irony or discretion.

I could time
the intervals
at which a snaky head breaks
water to gasp a breath of air,

or measure
the temperature
of the clear pool with its litter
of winter-worn leaves,

or hypothesize
on the gender of the large, heavy brown ones,
the shiny blacker lean ones.

or calculate
how many dozen it takes
to make the seething softballs here?

Voyeur, scientist,
figuring words
to tell about the nudgings,
pawings,
writhings
– you're not invited to the secret rite.
Just watch.

The only sound in the wet dark
is the gentle splash of rain,
drops dimpling and geysering above
the domino stars of the salamander backs.

The creatures float and sink,
a languor utterly without guile,
a twirl and twine unarmored, enamored.

My flashlight's gleam writhes too
with a steam of my mammal's breath.
Light glances over the dark pool
through shrubbery hung with lichened lace,
onto naked dripping spruce trunks.

Wraith wavering with my breathing –
a shimmer that is them oblivious to my light.
I could no more bring myself to stamp my foot
than reach a hand into their world:
Touch the magic mirror and the image vanishes.

They have disappeared, the dinosaur dancers,
wee folk gone by dawn, Cinderellas
of a Brigadoon that comes when
the maples haze red with bloom
and the hermit thrush comes back to sing,
yesterday and tomorrow.