

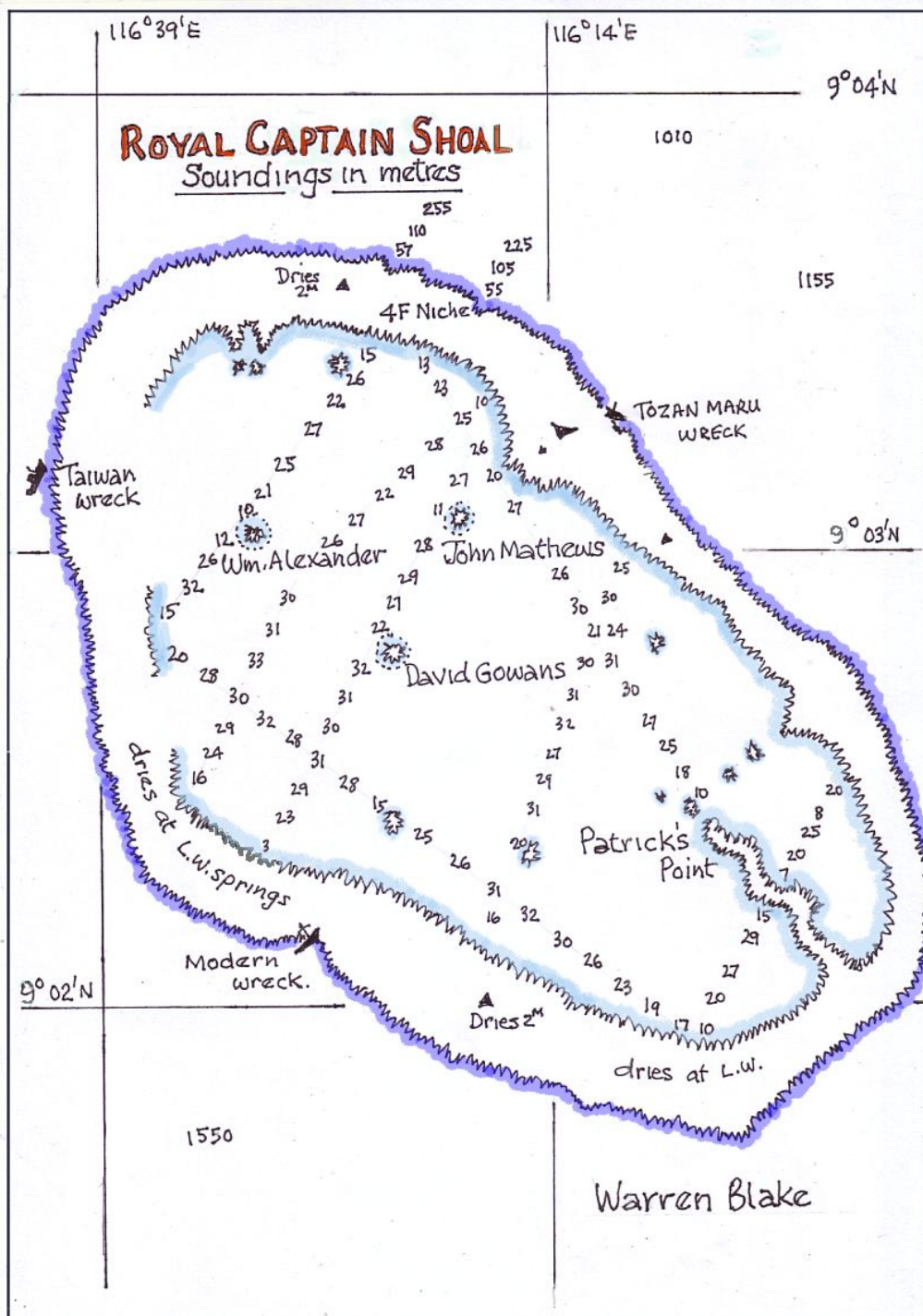
Our treasure-hunting expeditions in the ketch "Four Friends" took us to places where we expected, naturally enough, to find a particular wreck we were searching for; or sometimes to places, reefs on ancient shipping routes for example, that were merely likely to wreck ships. With these criteria, we quite obviously could not choose to avoid unpleasant locations, just as we could not choose attractive places.

Of unpleasant locations there were many unfortunately, for example: miles and miles of flat muddy sand at 140 foot down in the Straits of Malacca, where the visibility most of the time was absolutely zero, where we carried torch lights for no other purpose but to check on our watches for that vital "bottom time", but often could not even tell the time because of the dark cloud of suspended silt 'twixt eye and wrist, and where every potential contact had to be checked out by feel alone....but that is another story.

Of a few attractive locations for wreck hunting, one that remains a fond memory was Royal Captain Shoal, in that area of the Spratley Archipelago that lies under the control of the Philippines, as distinct from those reefs and islets variously under the sway of Viet Nam, Taiwan, China or Malaysia.

This classic atoll reef derives its name from the Hon. East India Company ship Royal Captain that was wrecked there in 1773. Because her Logbook related that part of her cargo consisted of seventeen tons of export porcelain from Canton, a valuable and durable commodity, she promised treasure to her finder. Her Logbook also provided fascinating details of her stranding at night, of herculean efforts to get off the reef, and of her eventual abandonment, with her cargo of tea and porcelain still intact. These details provided clues as to her likely whereabouts, not as precisely as one might wish, but that is the nature of treasure hunting!

Being a genuine atoll, Royal Captain Shoal consists of a shallow lagoon surrounded by a roughly circular ring of coral reef that dries at low spring tides, whose outer wall falls away vertically into the abyssal depths of the South China Sea. The open ocean where the Shoal lies is beautifully clear and blue, this meant that every dive on the outer wall was a joy. The spectacular types of coral growing on the vertical face varied greatly with depth,

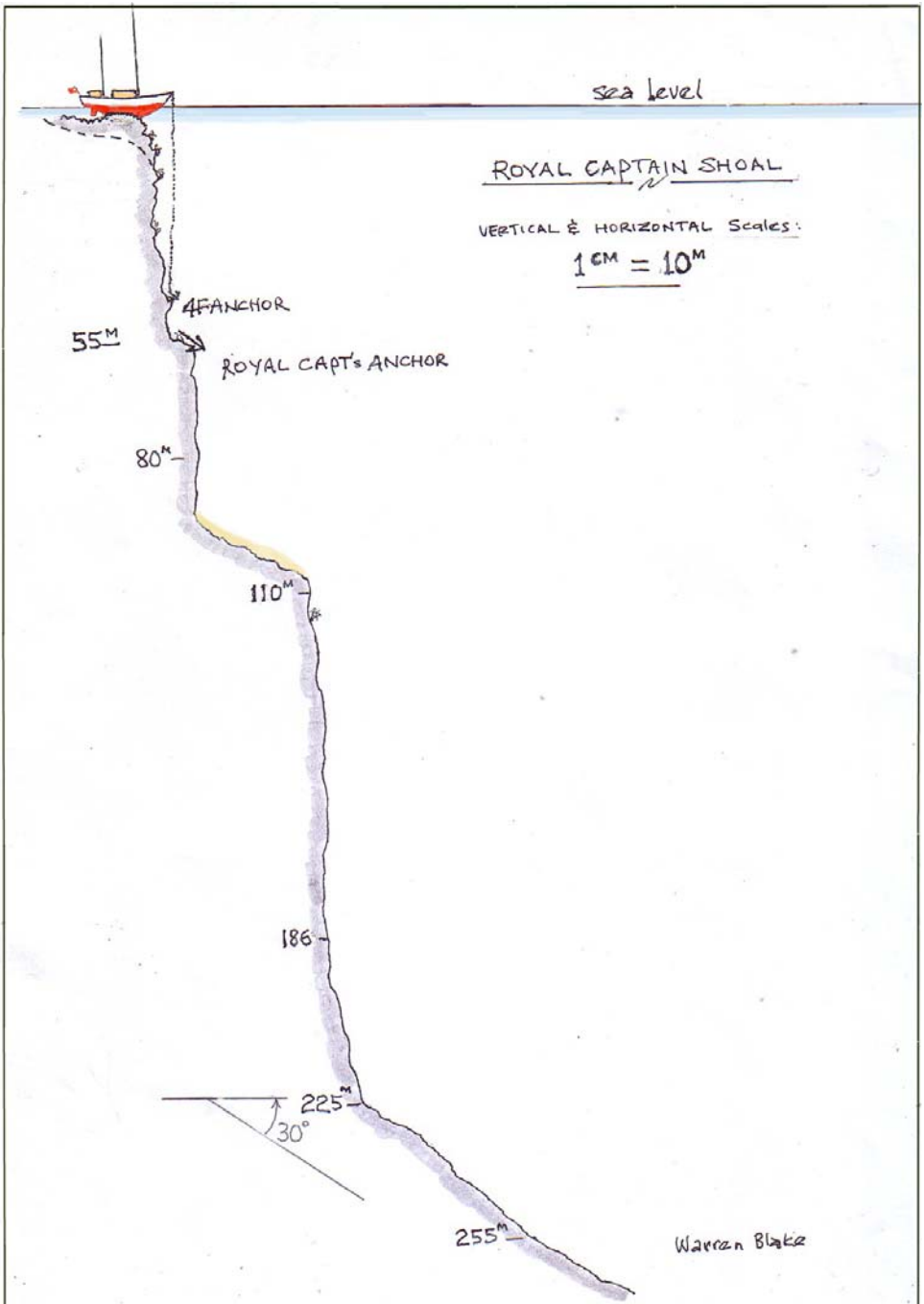


and the resident animal life, great shoals of Jacks and Snappers, many Manta rays and occasional Whale sharks, all cruising along close to the wall, made it seem like we were swimming in a two-dimensional, vertical aquarium.

This attribute of the outer wall, its sheer, vertical drop-off, cast its spell on every aspect of the drama of the Royal Captain.

The ship hit the invisible shallow lip at reasonably slow speed, in a very calm sea, so she was not immediately seriously damaged. A sailing ship stranded on a coral reef under these conditions could normally be “kedged off”...by taking anchors out to seaward in the boats and using manpower at the capstans to “kedge her off!” But in Royal Captains’ case, her anchors merely kept falling into the abyss until the cables came up tight directly under the ship, offering no purchase to heave her off. Having lost all her anchors in this way, she kept grinding on the coral lip for two more days until her hull was breached, whereupon the exhausted crew loaded the chests of silver into the boats and sailed off to the tiny British trading post on Balambangan Island.

Reef profile at Four Friends’ Niche....



Not all of the crew abandoned ship. “Three drunkards” who had slyly broached the ship’s Rum barrels refused to leave the ship and its alcoholic comfort, and were left aboard to their boozy fate...conjecture on which follows below. The only reminder today of these three inebriated fools lies in the lagoon, where three prominent coral shoals bear their names, courtesy of our survey team....see map.

The precipitous nature of the wall greatly affected our survey work, and our life for seven weeks at the reef too, of course. Merely to anchor our ship safely, so we could sleep at night, proved a tremendous challenge. The entire coral rim of the atoll was covered at high tide by at most six feet of water, whereas Four Friends drew nearly ten feet, loaded as she was for a major expedition. This meant first that there was no possibility of getting her into the lagoon, where depths of 16-20 metres would have provided a calm, azure and turquoise anchorage inside the protecting ring of colourful corals, a seaman’s dream of snug, scenic safety. Secondly, this dangerous, shallow rim, dropping away precipitously to abyssal depths, made anchorage virtually impossible on the outside.



*Four Friends viewed from 20 metres down. Here she has swung out of her “niche” and over the blue abyss.
Photo: Brian Pitkin.*

Fortunately, we found a niche, a small embayment almost, in the Northern rim, where 4F could float in about twenty feet of water, with her anchor chain down the wall, bouyed by an oil drum to keep it vertical, and with lines to coral heads to both sides and astern. The niche is shown by a dotted line in the Reef Profile. Here we lived in precarious safety for six weeks, although even a light Northerly wind would have forced us a ship’s length aft to crash into the shallows. Fortunately the wind stayed largely light and from the South and West.

Our survey work proceeded, using a magnetometer to locate any magnetic iron objects. We soon found the remains of four iron wrecks...none of them our 18th Century wooden sailing ship! One of these wrecks offered a spectacular dive. She was a large Taiwan fishing trawler, possibly even a fisheries mother ship. She lay with her bow in 40 metres of water, and her stern probably in 90 or more metres...lying almost vertical against the coral wall! To see a ship in this unaccustomed attitude was a first experience for all the very experienced divers of the French survey team, and for me and our own divers.

The wild-life at the Shoal provided much entertainment. We saw Manta rays on many of our dives. One full-moon night the Mantas chose to swim all around our ship, turning backward somersaults in the water that exposed their gleaming silver bellies in the rays of the Moon, almost as if they knew there were admiring eyes watching them.

The next morning I awoke at dawn, as usual, and sat up in my bunk in the cockpit, just as the edge of the sun’s orb was peeking above the horizon. Suddenly a gigantic black, horned apparition came roaring from beyond the far horizon, directly towards me, blocking out the entire sun with its huge widespread cloak.. I shrank in horror at the awful realization that the Devil Himself was coming to get me for my sins! It loomed up and up, then crashed into the sea about 50 metres away. It was a large Manta that had breached directly in line with the nascent sun, completely obscuring it! I felt too shaken to go back to sleep.

One of our divers, somewhat ray-shaped and dressed in a black wetsuit jacket with white cotton trousers, experienced the close attentions of a large Manta that circled him, almost touching. Afterwards Francis insisted

that a female ray had become enamoured of him, but I spoiled this romantic notion by observing that the ray showed a definite pair of claspers, “she” was a male!

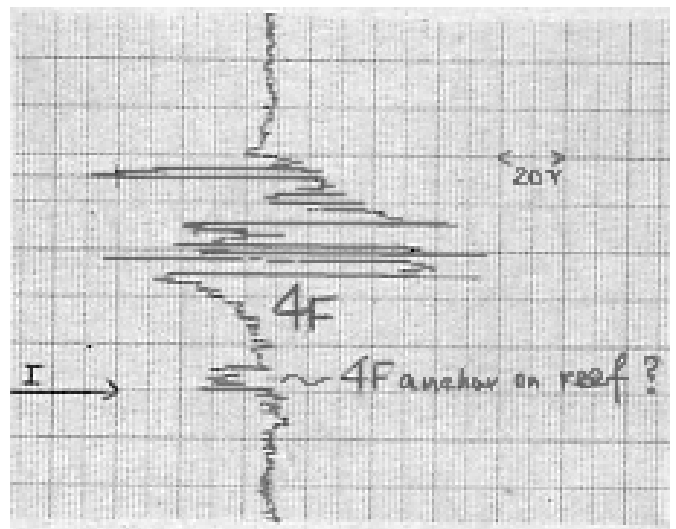


One evening, after dinner, I descended the diving ladder on the side of the ship to rinse my toothbrush vigorously in the dark water. I had barely pulled my hand out of the surface when Muk, fishing on the foredeck gave a loud exclamation and pulled up his line with half of a large Red Snapper attached. A large shark had taken the fish in the surface at almost exactly the moment I put my hand into the water! We took more care after that, and ceased night swimming completely. Oddly, we saw few sharks by day during our dives.

With our survey vessel anchored in the niche on the North face, her ferro-cement hull cast a “magnetic shadow” within a radius of 50-60 metres of her position, so naturally we hoped that the magnetic signature of the Royal Captain was not obscured within it.

A week or so later, however, our divers found, by eye, a cannon-shaped object enrusted in coral only 30 metres from the 4F. The Logbook of the doomed East Indiaman described how they “started to throw the cannons over the side”, from what appeared to be the last known position of the ship on the reef. Was the wreck of the Royal Captain, by extraordinary coincidence, hidden under the coral very close to our ship?

On earlier magnetometer runs in our motor-boat we had noted, of course, the great disturbance of the magnetic field caused by Four Friends, and also noted a slightly separate, smaller signal. Since the mag “fish” on its long cable had been flying quite deep, I interpreted the smaller signal as possibly our own anchor on its chain...see mag trace.....



One day one of our divers, hanging from our anchor chain, spied an unusually linear object on a ledge way below. He alerted me to this clue. I grabbed a tank and a measuring tape and jumped over the side with him. As I hit the water, my mouthpiece started to free flow, and no manner of banging it could stop the loss of air. I reasoned that this should be a very short dive...just follow my colleague down to the linear object, study it, and return to the surface...I should have plenty of air to spare.



Down to the mysterious object...obviously a huge, ancient anchor!...and amazingly, it lay on a small ledge at 57m depth, with its flukes hanging out over the blue void below.

No sooner had I laid out the measuring tape along its length than my air supply stopped abruptly. In my optimism I had not allowed for the much greater volume of air released by the leak at such a depth...my tank was empty, at least not capable of delivering the low pressure air therein against the surrounding water pressure. I looked at my companion, and signalled my lack of air. Although it should have been feasible to share his mouthpiece in an orderly ascent together from such a depth, I was not so confident...if he should prove even slightly reluctant to share I would be in a difficult position. This adventure took place, of course, long before the days of “octopus rigs”, where two divers can share one’s air independently. In addition, I was not sure of his status in terms of Nitrogen saturation. I would be in no danger from the “bends” during a reasonably rapid ascent, as mine had been a very short dive, but this was his second consecutive dive, and a fast ascent might produce dangerous bubbles of Nitrogen in his veins...possibly making him “bent”. I decided to make my ascent by myself, relying on the fact that as the ambient pressure drops, the small amount of air remaining would become progressively available...I should get a sufficient number of breaths to reach the surface safely. I handed the tape to my fellow diver, asked him to measure the anchor, signalled my intention to surface alone...and up I went.

I was right...but only just...there was enough air to survive that long swim up towards the distant, mirror-like surface....perhaps four meagre sips, while I exhaled continuously in between...and how pleased I was to break through the silver mirror into our planet's blue atmosphere eventually, and to gulp unlimited amounts of it!

The discovery of what was undoubtedly the Royal Captain's Best Bower anchor (from its measurements), along with the earlier cannon nearby in the shallows, seemed to indicate that our survey ship was indeed anchored, amazingly, in the last known position of the stricken East Indiaman. According to the logbook, the last anchor deployed in desperation to heave off was her Best Bower, the largest. This was what had created the magnetic signal separate from that of 4F, which I had misinterpreted....see Mag Trace.

That night I sought approval from Georges, Chef des Archaeologues, to moor 4F directly to the huge ancient anchor, rather than rely on our own tenuous grip on the cliff. Approval was granted, but upon further contemplation of all possibilities, I changed my mind. Our ship's pitching up and down even gently could conceivably crack the grip of sparse coral growth that cemented the anchor in place. Should the two ton anchor slide off its tiny ledge and plummet downwards connected by a chain of seven tons breaking strain chain to our bow, it was unclear what fate would befall our fifty ton ship, but I was not eager to find out.

We moved Four Friends well away from her niche, and surveyed her former surrounds with the magnetometer. Apart from the already known cannon, there was no other major magnetic anomaly, save what looked like an iron mastband that secures a topmast to its lower....one of the first spars likely to have gone over the side as the stranded ship pounded on the coral. The bones of the Royal Captain did not lie in the shallows here!

That left the distinct possibility that the wreck lay further down the drop-off directly below the anchor. Now we had long noticed by eye when we were diving off the reef to 40 and 50 metres, that far below, perhaps at 100 metres depth, lay a wide ledge, with no coral growth, and covered completely by a white layer of what was presumably sand. That a diver could see 50 metres further down was testament to the glorious clarity of the sea.

That night there was much talk of our wreck lying buried in sand on that deep ledge..and much debate whether the porcelain inside the ship would survive the fall and impact there. Certainly it appeared, from our deepest dives, to be wide enough to accommodate an 800 ton wooden ship. Our magnetometer could not reach so far down. How were we to investigate the ledge, which was well below the usual limits of diving on air?...variously quoted at 30, 40 and 50 metres, due mainly to the effects of Nitrogen Narcosis, a sometimes lethal intoxication produced by high pressure air, where the otherwise benign Nitrogen, 80% of our Mother Atmosphere's air, renders sober-minded men foolish idiots.

Various bold spirits among the French volunteered to dive to that ledge to find out. None in our group had been so deep before. It was our crew who had perhaps the most relevant experience. My brother-in-law Engineer, Hung, our Thai Bosun Muk, and I had all been down to 20m deep on pure oxygen, generally considered potentially poisonous at more than 10 meters. 20m on oxygen is equivalent to 100m on air in terms of oxygen toxicity...and I and my crewmen had proven we were not susceptible to this danger. That was all very well, that left the very real danger of narcosis, which none of us had suffered much from in earlier deep dives.

We three did increasingly deep dives down the slope together until we had reached 80 metres, without undue narcosis, at least as far as I could observe, in my possibly addled state.

After a suitable delay of a few days to completely "gas off", to expel all residual Nitrogen from our bloodstreams, we embarked upon the deepest dive of our lives.

I, as Dive leader, carried the only depth gauge warranted to such depths. The plan involved me sending the OK? Signal regularly to my companions to gauge the sobriety of their replies, and also to signal depth by holding up the appropriate fingers. All went as planned to 60, 70, metres. At 80 metres I forgot about the OK? signal, and struggled to find the eight fingers necessary. At 90, no OK?, and I was not even sure how many fingers I had on one hand, let alone able to add five plus four together. My arithmetic, normally quite sharp, had been reduced to that of a backward 6 yr.old! Apart from that obvious disability, I felt quite normal, reasonably confident, but still very much aware of the possible dangers, especially of staying too long.

At that depth I was not quite so confident of my companion's good sense. At 92m there was a sharp thud, almost like a distant explosion. I looked around in confusion. Hung now swam towards me grinning from ear to ear, and laughing out loud. I knew then that Hung was thoroughly "narked". He confirmed my suspicions by pointing vigorously at his watch, and saying out loud, "It's OK, we can stay down here for hours!" With

hindsight, it is difficult to understand how I could discern such levity, or understand his statement, since a divers face, especially those parts that grin and laugh and talk, are hidden completely by mask and mouthpiece! Without any more OK? signals we landed on the ledge in a cloud of white dust. In apparent sobriety, we fell to the appointed task, fanning away at the fine sand of the ledge with our hands or fins to determine whether there was sufficient depth of sediment to cover an almost intact East India ship of 600 tons, replete with porcelain cargo allegedly intact after surviving a 100 metre fall. Very fortunately, for our safety, we dug down to hard, white, bone-like coral rock within only 10 or 20 centimetres in all our holes. If there had been a metre or more of sediment we may have been so engrossed in our task that we could have stayed dangerously long, absorbing Nitrogen rapidly, and leading to that third deadly danger we faced, the gassing of Nitrogen in our blood as we would later approach the surface..the bends.

I still felt completely conscious of the dangers, and summoned my men to follow me back up the cliff. Muk, however, looked at me and at Hung with a wild expression, shouted some incoherent expletive, and without warning swam rapidly to the lip of the ledge and vanished over it, obviously narked, and heading vertically down towards the next level, the 30 degree slope that starts at 225m! I contemplated following Muk and reasoning with him, but was clear-headed enough to realise that at that speed I would barely catch him before the 150m level, and “reasoning with him” could easily involve a struggle, which at that depth would mean certain death for both of us. I waved a sad farewell to my old companion, and Hung and I started up the slope. I could sense that Hung was also full of grief for the loss of Muk.

We had barely progressed up to the 85m mark when an elated, loudly babbling Muk appeared beside us, incongruously dragging a large forest tree complete with leaves! To me he was obviously narked...how could he imagine he was carrying a tree...there were no forests within a hundred miles! I began to feel that we were all narked in some strange unrecognizable fashion.

Our steady progress upwards, disciplined by the Diver's Rule: never ascend faster than your smallest bubbles! quite soon brought us into “normal depths”. Now I saw that Muk's “tree” was indeed deserving of such a name...it was a large colony of precious Black Coral, that indeed grows in the form of a tree.

We stopped, completely sober, at our first decompression stop at 15m, where extra tanks were hanging on a coral outcrop in case of shortage of air. We consulted our air gauges, we all had sufficient for now, there were more tanks waiting at 5m. A French support diver arrived to exchange OK? signals, check our air gauges, and point quizzically downwards...”What did you see?” We showed with gestures that the sand on the ledge was too shallow to hide a wreck. He replied with a Gallic shrug, relieved Muk of his “tree” and left us to our long wait for “gassing off”.

Now Hung cleared up the mystery of the sharp explosion that we had all heard at depth. He showed us his Seiko diver's watch, warranted good to 100m. The face had imploded under the pressure at 92m, and the two analogue hands were sticking out at comical angles. Hung later admitted that he had indeed been mildly amused by the incident, but denied grinning from ear to ear, or laughing out loud, or announcing loudly that we had plenty of time to spare down there!

After more than an hour of hanging, sober, sodden and bored, to gas-off at 15, 10 and 5m, we emerged into a brilliant scarlet sunset, its colours intensified by the long period our eyes had been subject to only blues and greens. During our dive I had taken time to look horizontally from our perch on the ledge at 100m. It seemed then that we could see the dim contours of the coral cliff at immense distance, although the amount of illumination was something like that on a clear night in the full moon. All of us had peeked over the lip of the ledge, to peer down a pale, featureless white cliff, into an impenetrable ultramarine gloom. Hung alleges that he saw from there a giant Whale-Shark swimming along way below us.

It was on this diversion to the edge that Muk had noticed his Black Coral tree growing, fastened to the cliff “about 15m further down” he said. Since the lip was about 105m, this meant that Muk had gone to 120m deep! Muk claimed that he felt “normal” at the time, but Muk is not the kind of man to admit to any disability. He also claimed that he could see from there the next level, at 225m, but that was a further 100m down into ever darker water...I think Muk was affected. He was lucky that the coral growth had come loose with one or two pulls, because any physical activity increases the danger of the bends, and because any time spent struggling with it at that depth added greatly to his exposure. Even at 100m we were diving on the last page, last column, last entry of the US Navy Dive Tables, deep into a shaded area marked “Extreme exposure.”

Muk's motives in diving deeper to secure the Black Coral amused all on the expedition. Muk deftly carves grotesque phalluses out of this precious coral to hang around his neck as an amulet to guard against the bends, sharks, and Mothers-in-law...he refuses to believe in "narcosis". Out of his huge bush he carved hanging male organs for all the crew.

This deep ledge of ours at 95-105m proved to be a fairly consistent attribute of the outer face of our Shoal, and indeed, of several other atoll reefs at which we have subsequently dived in the Spratley Archipelago. This feature is actually a wave-cut platform, a beach, formed by the sea when it stood 80 to 100m lower than today, during the last great Ice Age, some 22,000 to 18,000 years ago. The coral atolls themselves must have remained quite static in terms of vertical, tectonic movement since then, unlike during their much earlier period of formation.

The atoll shapes were formed first as coral reefs fringing a number of probably volcanic islands. Under some immense tectonic force the whole underlying crust of the earth was subsequently warped slowly down, lowering the height of the islands. This downward movement was slow enough for the fringing ring of coral to grow to keep pace, and stay ideally just beneath the surface. As the tectonic forces submerged the islands further, all dry land disappeared, leaving a ring of coral with a vertical outer face, since coral has no way of spreading outwards without a substrate. Debris and sand from the life and death cycles on the reef succeeded in filling the enclosed lagoon, sometimes almost completely, but more often to depths of 10 to 20m. In this way was the perfect atoll ring of Royal Captain Shoal formed, with its original volcanic cone evident from 225m downwards, sloping out relatively gently at about 30 degrees...see Reef Profile.

It was apparent that large parts of the Royal Captain's wreck did not lie there on the deep ledge we dived to, nor where our other divers also descended. Much debate on the expedition had centred around four scenarios that might have been enacted in the days after her crew abandoned her and Les Trois Ivrognes (the Three Drunkards). Scenario One had the ship remaining stuck fast on the lip of the reef and slowly breaking up in the shallows, with the drunkards eventually dissolved away in a slow, hungover and uncomfortable demise. Our exhaustive visual and magnetic surveys in the shallows atop the reef had virtually ruled this out. Scenario Two envisaged the intact ship slipping off, badly holed, and immediately sinking, perhaps to come to rest on our deep ledge, or perhaps further down, at 225m plus, where the flank of the ancient volcanic isle underlying the atoll angles out gently from the cliff. Scenario Three has the ship floating off and sinking in 3000m of water some distance away. Two and Three both demand the quick drowning of the Drunkards. Scene Four, fortunate for the inebriated trio, has the ship floating off but not sinking, whereupon the Drunkards sober up, hoist sail and stagger away to some remote island in the S. China Sea, where, who knows? we asked, there may be little brown Gowans, Alexanders and Mathews running around to this day with a vague awareness of folklore which describes their God-like ancestors arriving at the island in a Great White Ship, and where all the locals dine off fine China ware.....well, it would be a good story!

Scenario Two, the deeper version, is almost certainly the correct one. Some years after our amateur expedition, our French Leader, Franck Goddio, returned to Royal Captain Shoal with a high-tech survey ship equipped with two Deep-Sea submersibles. At approximately the position on the cliff face where we had first dived to the deep ledge, the two submersibles went down to the slope of the ancient volcano. There in about 300m of water they found some pieces of the Royal Captain's hull, some porcelain plates, and even further down, the Ship's bronze bell, which they managed to grapple and bring to the surface, even after seeing it disturbed by their manipulation, and rolling further downslope. The remainder of the ship and her valuable cargo, however, will probably remain there for a long time yet, as any large scale excavation and recovery would be prohibitively expensive, far in excess of any commercial value. Some scenes from the Four Friends Expedition, and great footage of the two submersibles grappling with the bell, were shown a year or two ago on the Discovery Channel.

Like many Treasure Hunts our first expedition to Royal Captain Shoal found clues to the location of the sought-after Ship...but not her hull, nor her cargo.

I had discovered the Log-book of the Royal Captain in the India Office in London a year before our expedition, and on a rain-dark winter afternoon I had gone straight to a folio of charts, to quickly find the eponymous Shoal, and to sit over the Log and its account of the wreck until closing time, dreaming of diving down those vertical coral encrusted cliffs in clear, warm water. I realised my dream amidst stunning beauty. 95%.