

## **Bob Field's Story**

### **Working on the Mary Rose, Summer '75**

We knew it was dawn from the noise of the sparrows coughing outside our tent on Hayling Island. Yes we were poor in those days, typical Mary Rose divers. It was time to drag our still weary bones out of our sleeping bags, have a quick wash and shave before the rest of the campers woke up, maybe 3 hours later! Then into the car and join the rush of workers heading through the morning haze to the Portsmouth Naval Base.

We turned off to the Camber Dock where the 40ft catamaran Roger Grenville (named after the Mary Rose's captain, and father of Richard Grenville of Revenge fame) awaited us. The height of the tide decided how we got aboard, down the ladder, or jump onto the roof. Either way was fraught with the danger of dropping valuable items like food, milk, someone else's diving gear etc. Then we welcomed any new divers on board, and initiated them into life on board etc.

Once on board the food and gear had to be stowed away somewhere in the cabin. It was the foolhardy who left anything in Mac's seat. I made that mistake on the first day on board. And I still remember being 'corrected' by this stern old guy, who everyone revered! After all, finding the Mary Rose was his idea. We later became friends, but it wasn't the best start for a budding archaeological diver!

The beginning of the diving day was usually quite civilized as all the housekeeping had been done the night before, just a matter of emptying the cabin of all the air cylinders, wet suits, dive gear etc. and stacking it all outside on the rear deck ready for the days diving.

The most important job of all was of course boiling the water to start the continuous supply of cups of tea, that only stopped when we returned to the Camber that evening.

Usually Adrian Barak, the diving officer, navigated the boat out of the Camber, to either to the fuel pontoon, which was right, up the harbour, with a good view of H.M.S. Victory, or we went left and straight out to sea, past Henry VIII's Round tower at the harbour entrance, and past the Submarine tower on the Gosport shore. On the way out to the site the first 2 divers start kitting up, ready for a quick entrance into the Spithead sea.

30 minutes later, after dodging the various ferries and hovercraft, going past Henry VIII's Southsea castle, then one of the Napoleonic forts, we arrived at the two large BP mooring buoys, over the resting place of the 'old girl'. The Roger Grenville was then moored between the buoys, the positioning dependent on the direction and flow of the tide. The up-tide buoy was tied onto first, then the boat was maneuvered back onto the second buoy. The dive ladder was fitted over the stern platform, and the descent line buoy was recovered, and attached to the ladder or a nearby deck cleat. Sometimes on a high Spring tide, the buoy could be well under the surface. The descent line was our guide line to the site. On the seabed this was fastened to the top of Frame number 48, (now renumbered), which was around the front of the aftercastle, on the port side. The dive flag, Alpha, was hoisted at the top of the mast to show to other shipping that we had divers down and to keep clear. The log keeper, usually Alison (then Barak), then started taking the all important diving records for the day.

On the trip out to the dive site, the site directors, Mac and Margaret, would explain what work they hoped to achieve that day, and the divers would be given their orders.

Then the first diver went down to clean the trenches of various pieces of garbage and seaweed that had been deposited by the tide during the night, and to attach the air line from the air compressor to the airlift. This was the time that our peace and quiet on board was well and truly shattered when the Atlas Copco road drill air compressor was started up. Taking up about 1/3 of the after deck on the Roger Grenville, the large monsters' noise dominated our lives for the rest of the day. It was quite deafening close up, and the only relatively quiet place was up the sharp end of the boat (or to go diving).

Whenever a diver was down on the site, there was always a reserve diver fully kitted up, sitting on the stern of the boat ready for an emergency. It was THE most boring job on the boat, especially in that heat-wave summer, with no shelter from the sun or wind, but nevertheless an essential job.

Although sport-diving rules stated that diving should always be done in pairs (at the least). This was working diving, and because of the generally very poor visibility underwater, and the proliferation of lines and pipes around the site, it was much safer to work alone on the seabed. Another diver in the same area stirred up the mud, and reduced the visibility to zero.

Mary Rose divers wore the minimum of equipment necessary, to avoid getting caught up in the ropes etc around the site. Wet-suit, mask, fins, weight belt, air cylinder, regulator, life jacket and most important of all, a sharp knife.

The Royal Navy dive tables recommended a no-stop time at a depth of 60 ft of 84 minutes in a 24 hour period, so anyone exceeding their combined no-stop time during the day had to hang onto a shot line under the rear of the boat for seemingly ages, until they were considered out of decompression danger.

So obviously the log keeper was an important safety factor, especially in ensuring the dive times were accurately recorded. Even though the Royal Navy decompression chamber was quickly accessible by using the marine radio to call the Portsmouth Harbour radio station, nobody ever wanted the experience of using it.

The safety precautions were, a reserve diver, an air cylinder and regulator on the sea-bed by the 48 frame, the 10 ft. AVON inflatable, the Q17 fiberglass run-about, and marine radio. Barely adequate by any standards, but we were amateurs, with only just enough sponsorship money to keep the project going.

After the second diver had surfaced, the diving cylinder air compressor was started up. This was a single cylinder diesel high pressure compressor, which was very temperamental to start. The sequence was to squirt ether into the intake, and swing the starting handle. Sometimes the motor started first time, usually it didn't, occasionally the motor would back-fire and the starting handle would fly back. I still have a scar on my knee from the time it hit me.

The cylinders would be charged up, one at a time, to around 2,500 psi, which could take up to 20 minutes. They were always kept in a tank of water while being charged, to keep their temperature down, as charging always heated them up quite significantly, so when they cooled down the air

pressure inside would reduce, and therefore the quantity of air would also reduce. Then they would be stored on the rear deck ready for use.

Whoever was in charge of the cylinder charging had to constantly watch the pressure gauge to ensure cylinders didn't over-charge, and also to be ready for when an o-ring blew with a bang, which always woke people up nearby.

It was always of utmost importance to check that the air compressor cylinder air intake was up wind of the air lift compressor exhaust. Carbon monoxide poisoning is a very real threat to a divers air supply, as the carbon monoxide gas is absorbed very easily under pressure, and the effects can be fatal underwater, so the air has to be as clean as possible.

Whenever a diver surfaced from finishing his shift, the normal procedure was to update the next diver as to the current status of the work, and then enter the dive details into the log book, preferably before getting out of his/her wet suit. This ensured the information coming up from the site was recorded while still fresh in the divers mind. All divers carried a small white Formica board attached to their arms with elastic, and a pencil to write anything of significance, such as artifact descriptions, positions in relation to the ship, drawings etc. while actually on the seabed. On surfacing these would be copied straight into the log book. If anything of importance was discovered then a conference would be started, and decisions made on the spot, and a supervisory dive made. In this way the site was excavated in as efficient and professional way as possible, considering the very difficult underwater conditions, and the fact that all the divers were unpaid amateurs.

Diving on the Mary Rose was always an interesting, even exciting experience. First of all was the knowledge that each diver was part of a very unique club, we were the only people who could see and touch the Mary Rose, the ship was last seen afloat by king Henry VIII. Anything that we saw or touched would be being seen for the first time in 450 years.

Also most of what we were finding was unknown up to that point, the knowledge having been lost over the centuries. Going down the descent line was in itself an experience. Below about 20 ft. there were always huge shoals of Pollack & Wrasse fish, which stayed around the site because it was a protected area, free from commercial fishing. Below 30 ft. there was no red colour so everything had a greeny blue colour, then it got darker and darker, until on the seabed, strangely enough, it became lighter, because of the light reflecting off the lighter mud, however it still took 20 minutes for the eyes to get used to the dark.

Around the 48 frame there was a grid of scaffolding tubes laid out on the seabed, over and outside the wreck site. These were to delineate the site and to provide datum points for the 3 dimensional positioning measurements, of any artifacts or parts of the ship, as they were uncovered. We used white plastic folding rulers to take measurements.

Next to the 48 frame, was the outside port rear trench, which went down some 10 feet or more, below the seabed. The visibility was never better than 20 ft, and around 10 ft. was considered good. This made working alone slightly scary, however once you got down to excavating and with the noise of the airlift, there wasn't much time for thinking.

The first job was to position the air lift and then turn on the compressed air. If the tide was running very fast, the whole air lift would buck around, making it quite exciting to work with. When the airlift

was turned off, the site was very quiet, with only the sound of the Isle of White ferries passing nearby. Always there was a resident cuttlefish, whose name I think was Percy, who used to hang his tentacles over the scaffolding pipes and watch for the divers to change shift, then into the trench he'd go looking for morsels that had been disturbed with the excavating.

Three feet below the modern seabed was the original prehistoric seabed, a very soft light grey clay, that the Mary Rose had sunk into, and was very easy to excavate with either the hands or anything else that was available, usually a scallop shell, or at worst an oyster shell (very sharp edges). No metal digging tools were allowed because of the danger of damaging delicate artifacts. This was very appropriate as later when excavating the inner hull, items made of leather, wool and silk etc. were discovered.

To keep the visibility workable in the trench and to remove the unwanted mud and clay, the compressed air airlift was used. This was like a huge vacuum cleaner. It was made from a 6 inch diameter pipe, which was about 40 ft. long, with a floatation device near the top to keep the whole thing upright. The lower end was positioned around the site by adjusting the 4 guy ropes attaching it to the scaffolding pipes. The mouth had a loop of rope which passed round 2 scaffold pipes on either side of the trench, to make the job of moving the mouth around the trench a bit easier. Also, near the mouth was the air line connector and control valve. When it was needed, the control valve was turned on, and the compressed air roared away up the pipe.

As the water pressure decreased towards the surface, the air expanded which then trapped the water and took it up the pipe. So at the mouth there was a constant flow of water and mud, clay etc. which then discharged near the surface of the sea, and was swept away with in tide. The effect was to keep clean water flowing into the trench area, and to keep the visibility relatively clear around the mouth of the airlift, and to remove the unwanted mud and clay from around the ship. The lower end was positioned very close to the area the diver was excavating, typically 1 ft. so that the hand could scrape the clay, check for artifacts, and then push the clay towards the mouth of the tube, and away. On full power it was capable of removing anything within about 3 ft., but used on lower power could be an extremely delicate tool.

In one of the quiet moments in the deep stern trench, I remember thinking about the 400 odd sailors lying very close to me, at that moment, in the hull of the ship, undisturbed for so many years. Were we doing the right thing? I think so, because without the Mary Rose and everything in her, we knew so little about that period in English history. To my way of thinking, the Mary Rose herself was a turning point in world history. She was the first purpose built carvel planked, multideck, broadside firing warship, and was the prototype English warship, that was developed and refined and in 1588 helped defeat the Spanish Armada, two hundred years later create the British Empire, and spread the English language around the world.

Before the Mary Rose was raised, we divers were the only people to see and touch the ship, but as the depth removed all the red colour from the light, we only ever saw the hull planking as dark grey. When my friend Paul Faulkner took his cine camera and flood lights down one time, then the real Mary Rose was on show, the deep rich reddish brown of the pristine timbers was quite beautiful to see and touch. What a shame that we divers had to share the Mary Rose with the rest of the world when she was raised in 1982

The afternoon dive shifts were fill-in dives to use up any unused no-stop time, and to consolidate the mornings excavations. The very worst experience I found on working on the Mary Rose is trying to put on a wet wetsuit in the afternoon. It just refused to slide on, so it would take forever, and because it was wet it was cold.

Ugh! To signal a diver who should have surfaced at the end of his time, the only way to communicate was to turn off the airlift air supply. It was always amazing how time would disappear so quickly while busy excavating underwater.

When not diving, time was spent doing the shipboard chores like cleaning the Roger Grenville, brewing tea, coiling ropes, brewing tea, reading the log book, brewing tea, sunbathing, brewing tea, sleeping and brewing tea.

Talk always centered around the excavation, the finds, and the future. About August 1975, we knew the ship was the Mary Rose, but not much else. The overall length hadn't been measured, as the keel, the bow and the stern post hadn't been located.

The information that was coming from the hull was that the ship might have sunk upright, and that we had a complete intact hull. But, the hull timbers being uncovered in the stern trench didn't fit the way they were expected to. Then one cloudy, rainy day, Morrie Young, (a professional shipwright) went for an inspection dive, and surfaced with the news everyone had been dreading, it wasn't a complete hull, the angle of heel was about 60 degrees to starboard leaving only that side intact, as most of the port side had been eroded over the 450 years the hull had remained in the seabed.

Disappointed wasn't the word for it, until Mac in his inimitable style made the comment that maybe it would be better than H.M.S. Victory or the Vasa in Stockholm. Firstly, we had an original hull, not one that had been rebuilt over the years, and secondly, the Mary Rose would be displayed in cross section, thereby giving visitors a much better perspective of the whole ship.

So, when we thought we were excavating the 'mermaids sundeck' we were actually excavating Mary Rose's bottom!

After the days diving had been completed, the trip back to the Camber Dock was always a time of rest. We just enjoyed the sights and sounds of a very busy waterway, with the constant movement of Isle of Wight ferries, the Royal Navy ships and submarines and the cross channel ferries.

The Mary Rose excavation was very well known in the Portsmouth area, and whenever we came past the Round Tower at the entrance to Portsmouth Harbour, we always got waves from the holiday makers on the beach. Once we had tied up in the Camber, the housework started. All the ropes and gear had to be stowed away safely, and neatly, ready for the next day. The remaining air cylinders had to be charged up with air, and the boat had to be washed down to remove all the mud and clay that always managed to find its way on board from the excavation site. Any recovered artifacts were carefully wrapped in thick blue polythene sheeting, to keep it wet, and that was then loaded into Margaret's van, and taken away to the storage and conservation areas in the Naval Base.

If we were lucky we would arrive back at the campsite with just enough time to have a cold shower (the hot water having been used by the other campers) and dash down to the local pub for a meal and a pint. Then to sleep the sleep of the exhausted but happy Mary Rose diver.

In early September Paul and I were asked to return to the excavation for the final diving week of the year. There were questions that needed answering about the hull before the next years season could be planned. About the Wednesday of the week, we arrived back at the Camber Dock to be told that the Roger Grenville had to be cleaned very thoroughly as the next day we were going to take a VIP out to the site.

Neither Mac nor Margaret would tell us who it was going to be, so the guesses went wild, like Prince Philip, Lord Mountbatten, Prince Charles, the Prime Minister etc. Still, the boat got more than its normal share of cleaning that night.

The next day dawned, and everyone who had ever dived on the Mary Rose turned up at the Dock, to be greeted with the news that the VIP was to be Prince Charles, and that he was going to actually dive down to the ship. We went to pick him up from the Royal Marines base, next to the Camber Dock, and then took him out to the site. He was very interested in meeting everyone on the boat, and the rest of the morning was spent in a very relaxed, friendly manner.

The Prince dived twice, the first time accompanied by Mac, who showed him around the whole site, and then an hour later, Don Bullivant showed him how to use the airlift, and to do some excavating. The Prince even found a piece of a Tudor plate.



HRH Prince Charles - 1975

The visit was very important for the Mary Rose as this was the first Royal visit, and proved that we weren't just crazy divers, but we had a site of genuine archaeological value. Although the press hadn't been informed of the visit, there was considerably interest afterwards.

After the visit, the Prince was taken back to the marines base, and on the way managed to talk to everyone on board. A genuine red letter day for everyone involved with the Mary Rose. The front cover of Macs' book, 'How We Found the Mary Rose' has the photo of most people who were there that day. That evening was spent in one of the local pubs, with all the original divers like Percy Ackland (who was the first diver to find the Mary Rose), Morrie and Don.

The stories of the early days about looking for the ship and then trying to excavate were very interesting, and showed the amazing amount of enthusiasm that Mac generated in everyone that got to know him. I was very privileged, and lucky to have been involved in the project at that time.

A couple of very interesting coincidences happened to me since 1975, in New Zealand. The first was around 1983. I was working in the centre of the North Island, and at the time, in Taupo, they were celebrating the centenary of the introduction of Trout fish into New Zealand.

The local radio ham's were helping the celebrations by arranging a competition where any radio ham from around the world could collect points towards a certificate by contacting a Taupo radio ham by radio, and I was invited to be a guest operator. The radio station was set up in the middle of a bookshop in the main street.

As the radio was fairly quiet at that time of the day, I listened around, and heard a friend of mine, Stan, who lived about 100 miles away. When he had finished the conversation he was having, we started talking about the weather etc as hams always do. When it was his turn to talk to me, I was looking around the bookshop, at the books on display, and then I was completely stunned by what I saw.

On the shelf nearest to me, not more than 3 feet away, on the front cover of the nearest book, was a photo of ME! It was Macs book, 'How we found the Mary Rose', with the photo of all of us with Prince Charles taken in 1975. I had no idea that it had even been published. I mentioned this to Stan, saying 'I'm looking up at a photo of me looking down at me looking up at my photo'. He thought I was completely mad!.

Naturally, I bought the book. It couldn't have been much further away from Portsmouth, and what would the chances have been, of the book being in that position on that particular shelf in a big bookshop in Taupo, New Zealand?

The second coincidence occurred a few years later. My girlfriends' mother came up from Wellington, to stay with us in Auckland. She was always interested in reading books on English history, and she asked if she could take my Mary Rose book collection, back to Wellington to read. Her and her husband used to be very enjoy playing electronic organ music, and once a week they would visit other enthusiasts' homes.

One particular week everybody came to their home, and on the coffee table in their lounge was the 'How we Found the Mary Rose' book. One of their friends looked at the cover of the book, and suddenly remarked, 'That's a photo of my brother!' It turned out to be Reg Cloudsdale's sister, who at that time was living about 2 miles away from my girlfriends parents. Next time we went to Wellington, we visited her, and she showed us photos of Reg, and told us about his work etc.

It seems that once the mud from the Mary Rose site gets under your fingernails, there's no getting away from it!