The Petrophysics Summer/Autumn Special – Episode 2

Annette McGrath.

My first impressions....now for the more frivolous bit

Carol asked me "is the expedition what you expected it to be?" I thought about this for a few seconds, and then realised in a rather vague way, that yes it is, and no, it isn't; but overall it's not wildly different to how I imagined it to be. This is the first time I have worked offshore and I have never been on board a ship like the Greatship Manisha before. I have been on sailing holidays and of course on ferries to France and around the Greek Islands etc. but quite frankly nothing compares to the scale and size of the Greatship Manisha (OK, I hear you say "but you've never sailed on the Joides Resolution or the Chikyu...." – but hopefully that opportunity will arise someday soon).

When I first boarded the ship in Falmouth Captain Nikhil Arun Kanetkar kindly showed me around the very spacious and swish bridge and Raniith Kumar also gave us a tour of the ship. However, if I'm honest, despite the size of the ship my first impression was surprise at how cramped everything was on deck and I wondered rather worriedly how I would cope working in those circumstances for the next 60+ days. I was also staggered by the number of staff recruited to look after us; all very friendly and doing their utmost best to ensure that we were kept warm, clean, well-fed and watered just like a bunch of babies really, or horses!! I also was/am still surprised at how clean the communal areas and cabins are.



(Left) View over the deck of the Greatship Manisha during mobilisation in Falmouth. (Right) The Greatship Manisha at sea (Photo on left AnnetteMcGrath©ECORD_IODP photo on right DavidMcInroy©ECORD_IODP).

Luckily we have not had much bad weather (which is not what I expected at all, hope I don't jinx that by mentioning it!) but it was extremely rough when we crossed the North Sea, en route to Kiel from Falmouth. A few people had terrible sea sickness – but amazingly I did not suffer, but that was not down to my iron-constitution, but more probably to the travel sick pills (Stugeron) that I took and the "Seabands" that I wore – I would definitely recommend them! We sailed through the Kiel Canal in N Germany (my sister was tracking the ship and she was confused when she thought we were sailing through land!) on our way to the Baltic Sea, and the weather was calm – it was weird sailing past quiet roads with the occasional car, and people cycling, walking dogs or just sitting and staring in surprise as the lofty Manisha sailed past.

Now this may sound a bit naïve, but I hadn't realised just how noisy it was going to be on board. There's a constant meleé of all kinds of noises, from the unremitting, yet soothing, rhythmic thrum of

the engines in the background, the constant general whining, rattling and groaning noises from the ship and the whirring of the air conditioning, to the more startling and unexpected thumps, shrill clatters and huge bursts of noise as drilling progresses. But after my initial dismay at the incessant noise I soon got used to it – and after a 12 hour shift I sleep like the dead anyway.

I am a vegetarian, so I was a bit apprehensive before I got on board, but the food is on the whole very good and the Chef, Roman, does his best to always provide a veggie alternative or a veggie version of the sauce for me. So I am certainly not wasting away....au contraire, hence I do not want to discover the scales, or my jeans, for quite a while to come. I also thought I would be exhausted by the 12 hour shifts, and also by working through the night, midnight to midday. But surprisingly I'm not – it doesn't take long to adapt and get into the different rhythm and curiously I've started to enjoy the routine; there's a strange kind of satisfaction to having your day planned out in front of you... but I may not be saying that by mid-November!

A week ago I had a great tour of certain parts of the drill floor (when drilling had ceased and it was safe of course). One of the things that really struck me was the great variety, in shape and size, of the drill bits. One was particularly noticeable – the "six-cone roller outer bit, with a smaller insert bit" – which looked to me as though it had a second set of inner jaws and teeth protruding through the outer maw; it was very reminiscent of the creature from the film "Alien". In fact, in some places the rig can look very dark and menacing at night – so Sigourney Weaver and the Alien would not go amiss in this setting. Also, when I watch the Top Drive in action, mechanically picking up and screwing new pipes onto the string already in the hole, images of tanks, or one of Dr Who's Daleks flood into my mind....but maybe that's just my strange and vivid imagination, of course without the influence of alcohol on board this dry ship!



(Left) The Top Drive (yellow) in action, picking up pipes – a tank, or a Dalek? (Right) the six-cone outer roller bit (blue) with smaller inset bit (silver grey) – or is it the gaping jaws of the "Alien"? (AnnetteMcGrath©ECORD_IODP)

Before I came offshore everyone I spoke to told me to enjoy the beautiful sunrises and sunsets that I would see on board. However, nothing prepared me for the amazing scene that I see every morning, a breath-taking psychedelic canvas of shifting colours and shapes, changing ever so subtly every few seconds until the sun breaks the horizon and blazes across the sky – something I will never forget. I'm also looking forward to hopefully catching my first glimpse of the elusive Aurora Borealis sometime in the next month or so...







A small selection of some of the most beautiful sunrises that I have seen, so far..... (AnnetteMcGrath©ECORD_IODP)

What is my life like on board?

My day always revolves around the same theme – get up, shower, walk down to the galley, eat breakfast, walk all of 200m to the container, log core (if there is any), drink coffee, walk 200m to eat lunch, walk 200m back to work, drink coffee again, walk 200m to eat dinner, walk up the stairs to get some fresh air on the deck, watch a DVD or go to my cabin, read, go to bed, sleep, get up eight hours later etc. etc. Colin Graham encapsulated life on board Greatship Maya perfectly, when on Expedition 325 in 2010 he described his pattern of life as like "Groundhog Day" (Und täglich grüßt das Murmeltier, for my German colleagues) – I can totally relate to this and the comparison did make me chuckle! Food and coffee provide a central and very important focus to my day. The meals are good - so I shall come back twice the size - I had better find the gym on board even if it is a bit gloomy in there. There isn't a great deal of space for exercise on the ship – as just mentioned, there is a small but fit-for-purpose gym and also space at the bow of the ship – we have nick-named this our "balcony" and it has just enough space to get some fresh air and have a short walk. But I am actually getting some exercise lifting the cores out of the racks and on and off the MSCL – as they are bloomin' heavy! I may return home looking like Arnold Schwarzenegger rather than Olive Oil.



The walk to work at the beginning of my shift at midnight - the walk takes approximately 1 minute - my journey to work can take up to 1 hour by car! (NB the "Alien" would be quite at home here?!) (AnnetteMcGrath©ECORD_IODP)

I'm on the midnight to midday shift, which took some getting used to – but, as mentioned above this does have its benefits as I do get to see the sun rise every day (something I never do at home!) and it's quieter on this shift so I can get on with my work easily. Sometimes it feels a bit isolated though,

because I am literally alone in a turquoise metal container in the "Science Garden" on the deck of the ship. Nevertheless there are other containers next to mine, so it's not that remote if I want to have some human contact and a chat or a drink. Also, most of the "events" happen in the day shift – e.g. birthday celebrations, visits from the press and other organisations – so I generally miss those things too, which is a shame. However, I get on well with the other people on my shift, a multinational, multilingual team who all speak fabulous English, which really puts us Brits to shame (well me in particular).



Containerised laboratories and work spaces in the "Science Garden" - the Petrophysics container is furthest on the right (AnnetteMcGrath©ECORD_IODP)

The ESO team are a great bunch and we are all working really well together; I am lucky that even though this is my first time offshore I had already met everyone from the ESO team, and made some good friends (but maybe they just like the coffee from the Nespresso machine!). This includes Annick, the Petrophysics Staff Scientist, who is generally working on the opposite shift to me, but is always on standby to start the downhole logging programme (alongside Weatherford Wireline Services) at each site, whenever the time is right. Holger and Patrizia are on the same shift as me, and are always obliging and happy to carry the cores to the Petrophysics container when they are ready; and they constantly have big smiles despite the workload and inclement weather on deck. Mary, ever helpful and patient, is eternally chirpy regardless of the IT problems that sometimes crop up. Ali and Dave (Long) are ceaselessly cheerful and always chipper in the face of the inevitable technical issues that arise on the drill floor. It's always good to see Carol, Sophie and Dave (Smith) when they come on shift, bright-eyed and bushy-tailed at 6am, ready to face a new day; but I must admit that I am rather jealous of Carol and Sophie's feminine bespoke headgear – although I can feel another comparison to the "Alien" movie coming on when I look at Sophie's hard hat!



Carol and Sophie's beautifully decorated hard hats. Sophie - is that a crown or a core-catcher? (AnnetteMcGrath©ECORD_IODP).

It also brightens my day to have a chat with Luzie and Alex at the beginning or end of my shift – otherwise we would never see one another as they work midday to midnight.....and I often hear Graham and Alan's dulcet tones on the drill floor as I walk the 300m back to my cabin, but sadly I see little of them as they are on the opposite shift to me. Strange thought, that there is a whole new shift beavering away and working hard while I am sound asleep....



How many men does it take to change a light bulb...or put up a shelf in the Petrophysics Container? But seriously, many thanks to Graham, Ali, Dave (Long) and Alan for sorting the racks out for us. Petrophysics Staff Scientist Annick Fehr looks on and provides guidance. (AnnetteMcGrath©ECORD_IODP).





Luzie and Ali (Left) and Holger (Right) enjoying a coffee in the Petrophysics container. (AnnetteMcGrath©ECORD_IODP)



(Left) Mary doesn't like coffee, she just comes for the wonderful company and to admire the MSCL (Right) Annick and I hard at work. (AnnetteMcGrath©ECORD_IODP).





(Left) Carol has had enough and has decided to jump ship. (Right) Patrizia and Alex outside the Curation Container (photo on left AnnetteMcGrath©ECORD_IODP, photo on right HolgerKuhlmann©ECORD_IODP).



(Left) Dave Smith gets in touch with his feminine side and chills out as he provides Jeanine and Sophie with knitting lessons (photo AnnetteMcGrath©ECORD_IODP). (Right) Dave Long just can't believe it, so real men do know how to knit! (photo MaryMowat©ECORD_IODP).

There is also a great team of scientists on my shift, all hard-working and totally committed to the project. A bit of light-hearted relief is to be had in the darkest hours of the shift, when there is the daily "guess the drilled depth at the end of the shift" competition (for which the prize is often chocolate, a valued commodity on board) – which I never win.



Coffee break on the night shift. (Photo NadineQuintanaKrupinski©ECORD_IODP)

So, would I like to work offshore again? Yes, definitely. It is so exhilarating to be part of a collaborative research team, all functioning within their own areas of research, yet working together and relying on each other to produce high quality data, but operating in such an unusual and challenging offshore environment..... and of course it's also great to have all your meals provided and laundry done!



View from the "balcony" on the bow of the Greatship Manisha (photo to left NadineQuintanaKrupinski©ECORD_IODP, photo below MaryMowat©ECORD_IODP



Beautiful 360° sea views from our "balcony" on the bow of the Greatship Manisha