It is not over yet, but already 2010 has been an amazing year for women in technical diving. The following are just a few reasons why:

» This year is the tenth anniversary of the Women Divers Hall of Fame: A non-profit organisation dedicated to honouring and raising awareness of outstanding women divers

» A new book, Women and Pressure was published. This piece of literature celebrates females working and playing in altered barometric pressure environments and their progress in the fields of both diving and altitude

» Female submariners will be permitted to work on UK Vanguard class submarines for the very first time in history

» A vast number of women who have played pioneering roles in technical diving are lecturing at Eurotek, the technical diving industry’s exhibition and conference in Birmingham, UK, this October

» And, ahem…I of course have just achieved my TDI Advanced Trimix Instructor rating.

I am one of just 16 active female TDI instructors (as BLUE went to press) working in the Middle East today (there are 120 male) and thought this was as good a time as any to catch up with a handful of my heroines and find out which were the moments that changed their lives on their oestrogen-fuelled journeys into the unknown.

Verna Van Schaik (VVS)
On 25 October 2004 Verna van Schaik became the holder of three world records for the deepest all time, deepest cave and deepest altitude dives by a woman. The all time world record was conquered on that day with a five hour 39 minute dive to 221m at Boesmansgat cave, Northern Cape, South Africa. Verna works at technical diving facility Liquid Edge Diving in South Africa which she runs with her husband. She is also a very successful life coach and runs her own company The Exploration Academy. Her married name is Verna du Preez.

Janina ‘Nina’ Preisner (JP)
Nina has been diving since 1991 and is a PADI and TDI instructor. Having mostly dived in the UK, she also worked as an instructor in Sharm el Sheikh for four years before returning to her legal career. Nina has dived most of the great wrecks and enjoyed the challenge of 160m dives to the stern of Ras Mohammed’s Yolanda wreck, resulting in the world record for the deepest female wreck diver on open circuit scuba.

Main images: Nigel Wade
Agnes Milowka (AM)
Following a keen interest in wrecks, Agnes completed a graduate diploma in maritime archaeology at Flinders University. When tackling deep dives, the O2ptima rebreather has become her weapon of choice. These days, it is the caves, both wet and dry, that enthral her. Her exploration has taken her to the far reaches of some of the most beautiful caves in the world in Australia, the US and the Bahamas. In Australia she became one of only a handful of divers to dive to the back end of Cocklebiddy Cave, the longest cave in the country. Recently she pushed through numerous sumps in order to discover in excess of 1500m of dry cave passage, in what has become the deepest cave in Australia’s state of Victoria. She was also part of a National Geographic Team on a project to the Blue Holes of the Bahamas. Her other interests including underwater photography and videography.

Tooni Mahto (TM)
Most people will recognise Tooni from the BBC Oceans series. The Oceans team’s scientific expeditions led them to the Arctic, Southern and Indian Oceans, the Atlantic, the Sea of Cortez, the Mediterranean and the Red Sea. Mahto graduated with a first class honours degree in marine biology from the University of Plymouth and a masters with Distinction in Oceanography from the University of Southampton. She is an avid conservationist and wildlife journalist, has led and scientifically coordinated expeditions and diving trips in Tanzania, Mozambique and Malawi, and is a PADI OWSI, HSE Commercial Diver, Cave diver and RIB skipper.

Who was your biggest influence in directing you into the realm of deep diving?

VVS: I started diving in 1989 at Wits Underwater Club, the same club to which current world record holder, Nuno Gomes, belonged. Watching him create teams for his journey to his cave record got me interested, even though when I first started I didn’t really like diving deeper than 30m. When I finally got the experience and confidence behind me, however, I fell in love with the dark world of caves.

JP: When I went to Sharm in 2002 I met Leigh Cunningham and he was so enthusiastic about technical diving I signed up to do the TDI courses. I’d been diving since 1991 and was keen to try something new and was desperate to go deeper safely. I really enjoyed the science behind it and reading about pioneers Sheck Exley, Bret Gilliam and others. When I met Neil Black (technical instructor and wreck explorer who works for Ocean College in Sharm el Sheikh) the fun really started as we had the same diving mentality and ideas about exploring.

AM: I didn’t plan to become a technical diver, it just happened. It was a natural progression to want to dive deeper. I wanted to pursue largely untouched and pristine wrecks and explore further inside extensive cave systems. I had to start playing with more advanced dive gear and mixes gasses in order to do so. I kept diving and steadily building on my experiences and as a result I have ended up exploring the most amazing places on earth.

My first taste of cave diving came only a couple of years into my diving career. Back in 2004 a bunch of us went snorkeling over Piccaninnie Ponds, in Mt Gambier. Mt Gambier is Australia’s cave country and is littered with beautiful caves and deep sinkholes. Pics is actually a large sinkhole and it eventually drops off to 125m. Up the top, however, it has a vibrant and active ecosystem, with plenty of animals like fish, eels and to my great delight, turtles. The ponds offer perfect visibility. As I snorkeled on the surface chasing some little turtle, I swam over a lip and suddenly the bottom dropped off from below me. A large shaft dropped down to 40m and there was just this darkness that beckoned. As I saw the diver ascending from the depths I thought - I want to go down there!

TM: Sadly, I have to say that the biggest influence on cave/tech diving was the idea of the challenge. I had never really been that interested in deep or technical diving, as I just fully enjoyed the experience of being in water and particularly loved diving on reefs. I had never been pushed to a new level. The challenge was presented during the filming for Oceans, when the Producers told me that Paul [Rose] was doing a cave diving course, and would I be interested in doing it as well? I do not really like enclosed spaces, particularly dark underwater ones. I had a bad experience on a school pot-holing trip where someone had freaked out in front of me and we all got stuck in the
cramped, dark tunnel. But the challenge was laid down: if Paul was doing it, I knew this wasn’t going to miss out on the opportunity to be taught something I considered to be so far out of my field of experience! It was a huge mental challenge for me. That moment when you face the downward facing dark, narrow passageway into the underwater cave system, it gets me every time, but I felt so utterly privileged every time I turned a corner in a cave system and was met with new sights with each sweep of the torch. And never had that sense of all over achievement and experience upon leaving a dive site. I had also been diving for many years when I did the cave diving course, and it really highlighted to me that there are always new experiences to have with diving, and I really felt like the course took me right back to being a beginner again. I felt that same sense of excitement and wonder I did on my first ever dives.

What technical achievement are you most proud of and why?

VVS: I think the dive that was the hardest was my first solo into Badgat (fresh water cave system formed out of a South African asbestos mine), in 2001. I was aiming for 145m in a decline shaft that had only been dived twice before (I was part of the first buddy team to venture in). Technically it was a challenge for a number of reasons. I had a three to four minute swim from 110m (the bottom of the main mine shaft) to reach the entrance. Then the decline itself was quite confined, with thick silt and at an angle that meant finning would reduce visibility. I had two support divers, one of whom could only get to the bottom of the shaft. That meant I was at least six minutes away from help if something went wrong and I had only the cylinders I was carrying, so gas was really limited. It took a lot of planning to ensure that I had all the risks properly identified and my gas management properly calculated. At the time doing the dive was a highly controversial decision and one that I really do regret.

JP: Well, I think that would have to be reaching the stern of the Yolanda wreck, Red Sea, in 2007. There were many problems with the project. First, because we didn’t know exactly where the wreck was (yes we had a vague idea but it wasn’t as easy to find as we hoped). Second, because trying to find a spot 160m down in the blue with currents, while wearing six to seven cylinders, isn’t that easy. It would have taken too long to get there with the reef in sight, as the wreck sits quite far out. We had quite a lot of aborted dives and dives where we found nothing. However, the ‘bad days’ were all part of the fun too. Thankfully Chad at Ocean Tec was very supportive and generous with the gas! I owe a lot to him.

AM: Pushing out Mission Spring, a cave system in Florida, from a cave that was 153m to a cave that is now in excess of 2,743m was definitely a fantastic and mind blowing experience. At first it was hard going. I had to battle through very low passage filled with sand and then muddy clay. There is a good 305m of wriggling – you’re literally between a rock and a hard place; the restriction is unrelenting. Yet I pushed it, I persevered, I believed... and more to the point I fitted! Eventually the cave opened up a little. Then it opened up some more. I kept going back day after day for three weeks. Each day I unceremoniously dumped reel after reel into the cave and yet it just didn’t end – it was incredible. Those two weeks were among the best of my life, where I did very little other then sleep, eat, knot line and explore. It is difficult to describe the burst of energy and pure adrenaline that I was feeling at this time. Nothing can beat the moment you unwind a reel into completely new and unchartered territory. One feels pure, unadulterated joy and happiness, all peppered with a bit of a thrill.

TM: My proudest technical achievement is actually managing to undertake challenging cave dives with a full film crew. Filming underwater is notoriously riddled with problems. To get a cameraman, lighting guy, safety divers and two people talking into and out of the cave is a remarkable achievement. I’m very proud to have been a part of that - we dived in an amazing series of caves in the Bahamas, with a brilliant and hilarious cave diving film crew, led by the legend Wes Skiles (Wes sadly passed away in July this year). It was amazing to be part of their tight knit team for a few days, and watch real experts at work in a medium they are so highly skilled in.

What is your fondest memory of diving in the Red Sea?

VVS: I have only dived once in the Red Sea, way, way back in the beginning of my diving career. The thing that stood out for me at the time was how plentiful the fish were and how easy getting to the reef was. No hectic surf launches to navigate.

JP: My favourite tech dive was a drift from the back of Jackson Reef down to the southern tip of Woodhouse. Perfect current and plenty of hammertime. Every dive is good in the Red Sea.

AM: I haven’t been to the Red Sea yet, but would definitely love to go one day. I have heard amazing things about the area, so it is definitely on the list.

TM: Wow, with so many great memories of diving in the Red Sea, it is almost impossible to narrow down to one. My experience in the Red Sea took me from diving an oceanic rift in Djibouti, visiting un-dived sites in Eritrea, and seeing the absolute highlights of what Sudanese diving has to offer. I have a confession to make actually, the Oceans trip is the only time I have ever dived in the Red Sea. I would narrow my favourite dives down to two though. My first would be a night dive off a small island in Eritrea - we were diving to film fluorescent
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corals, and the underwater visuals were so deeply psychedelic, it really was like seeing corals for the very first time.
My second favourite was diving with my good friend Dr Lucy Blue. She is a maritime archaeologist, and knows everything there is to know about boats through the ages. We dived the Umbria off the coast of Sudan, and it is the most beautiful wreck I have ever been on. The light streaming through the port holes was so evocative, reminding you of what she must have looked like while afloat. I wanted to dive that wreck one hundred times - sadly, there’s never enough time!

**What is your next project?**

**VVS**: My next project is dusting off the kit and getting back into the water. After a decade and a half of diving I have tried to get some balance back into my life, so spending weekends diving is no longer a priority for me. I am looking to spend time on my new book and my life skills coaching, all of which use the lessons I learned diving to create lasting change in people’s lives. The one thing that diving really left me with is the fact that limits are choices. The day I stopped believing in the limits the world told me were inviolate was the day I got my 146m dive (that dive gave me two more world record dives (186m and 221m).

**JP**: I love UK diving so I'm happy to keep exploring over here. Truk lagoon in the Central Pacific is next on my list of places to visit.

**AM**: I'm currently based in Australia, which is a good place to be as there are many opportunities to find new cave systems. I hope to go down south and explore some of the wilder parts of Tasmania. Tasmania has all the good stuff when it comes to cave diving; cold water, high flow, low visibility, difficult access to the water’s edge and sharp rocks that have a habit of slicing through drysuits like butter. It is still very much unexplored because of the logistics and technical difficulties involved. It should be a lot of fun!

**TM**: My next project looks to be a second series of Oceans, although I have no idea what it will have in store this year. It will be a UK based series, looking at the best archaeological, biological and conservation work going on around UK shores at the moment.

**How can our readers get in contact with you?**

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Cath says: As a female technical diver I feel my qualities are patience, perseverance, the ability to multitask and a whopping great portion of women’s intuition, which I trust implicitly if something doesn’t feel right. But you won’t get any bra burning from me or huffing and puffing about which planet the sexes are from. Similarly Agnes believes that to excel at any sport requires dedication, commitment and a single mindedness that in this case means that diving comes first, ahead of everything else. It has to be your life and the very reason for your existence. If you are pushing the boundaries, the inherent risks associated with diving increase incrementally. This is not for everyone, regardless or whether you are male or female.

So for my sisters who are hiding in the shelter of the shallow reef in awe of the bubbles coming up from below I say – listen carefully to the wise words of Verna, world record breaker and life coach, and embrace the adventure: ‘You get to choose to accept the limits you are living in or challenge them and change them.’