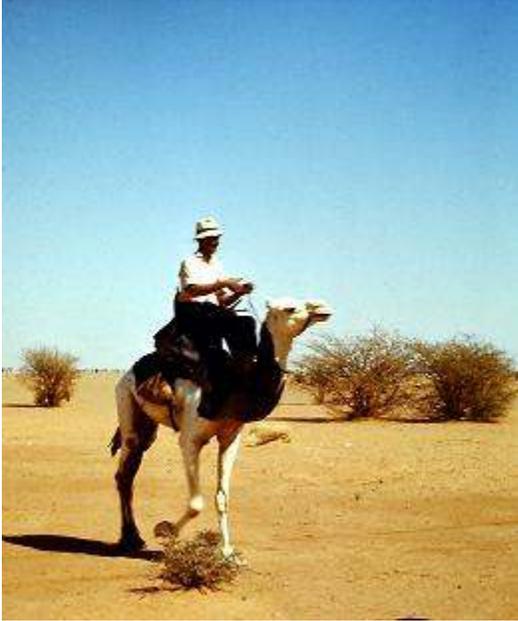


## The British Expedition to the Air Mountains

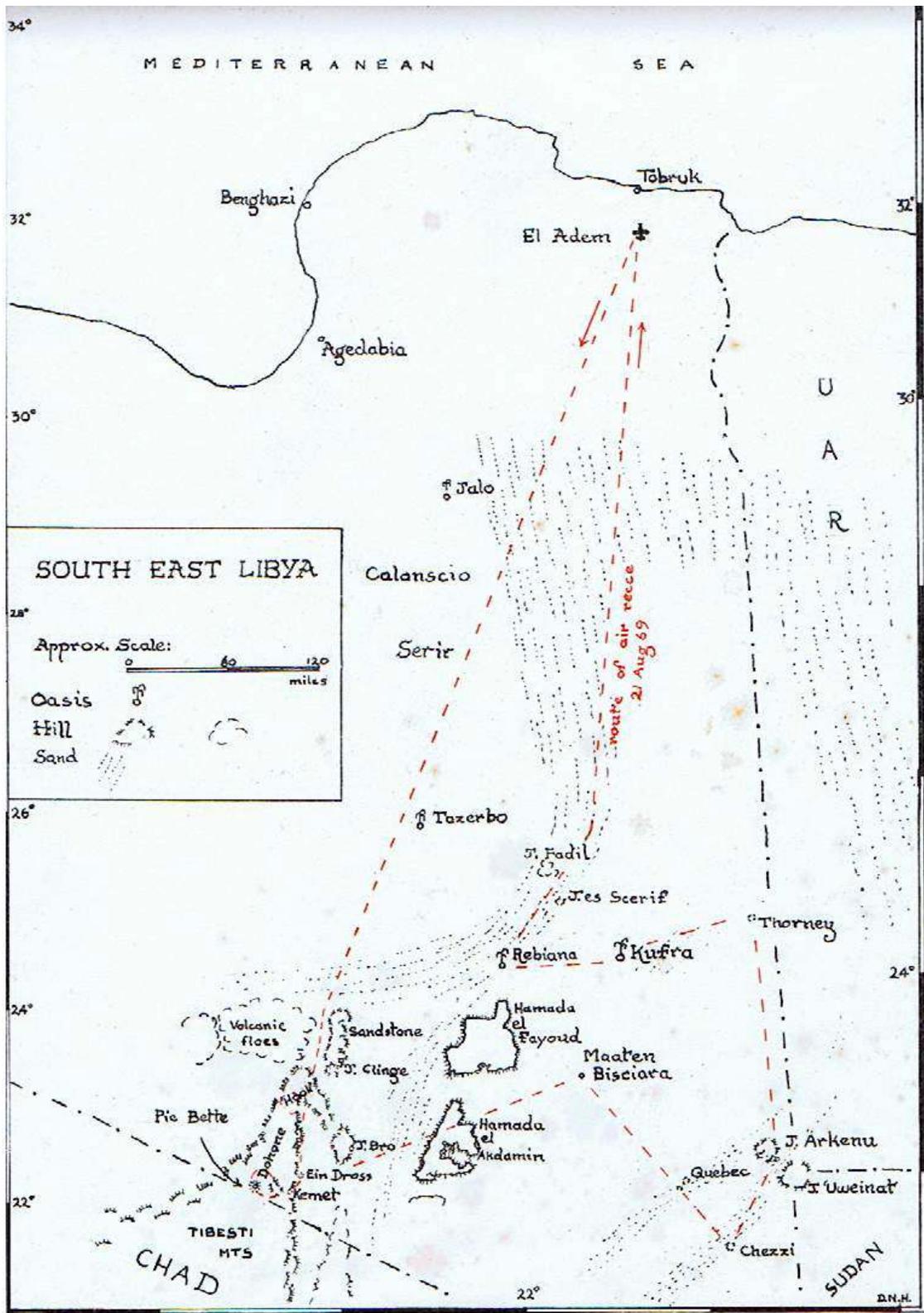
David N Hall



Professor Théador Monod of the Natural History Museum in Paris proposed an international study of south east Libya. There was to be a loose association between the French, British, and the Belgians under Professor Léonard. Léonard came to see me in London, and we started a correspondence, an exchange of maps, photographs bibliographies and other information. Jean Maley, a palynologist from ORSTOM in France would join us for part of the three month expedition.

At a fairly late stage while working in the MOD I managed to persuade the RAF to fly me by Hercules aircraft to Libya and carry out a navigation training exercise deep into the desert. The first leg was from RAF Thorney

Island, near Portsmouth, to El Adem, an RAF base in the desert near the Cyrenaican coast. The following day I discussed a flight plan with the skipper, and set it to cover the proposed area of our next project in Libya covering the whole of the south east corner between the northern Tibesti (The Dohone area) and Uweinat.



Sketch Map used to illustrate my report following a flight to south east Libya where the expedition was to be held. Names were given to craters. Red line shows the route followed from the Airfield of El Adem.

The flight down was a long one, but as we approached the Tibesti I took out the Gemini space imagery and discovered where we were on it. I knew the area reasonably well from the air because I had studied aerial photographs. Standing behind the skipper, I would say what interested me. Below us was a mass of volcanoes of all sizes, all extinct. I pointed to particular one I wanted to see more closely, and from about 28,000 feet he seemed to drop like a hawk to 6,000 and lower to circle the volcano in question. Then we located what I believed was a raised wadi. In other words, the original river line having a harder surface stood above the surrounding area when denudation took place. We flew down the wadi and it confirmed my belief. I was to see one such raised (fossil) wadi about twenty feet or more above the ground on either side years later in Oman.

Being now more or less on the border with Chad, we then struck north east on a bearing to Maaten Bisciara which was the lone well we had used on the second Sandhurst expedition. We crossed the northern part of the Hamada el Akdamin and I recognised where the well would be by the shape of the nearby hills which were familiar from the aerial photographs. At that point we turned south east to Jebel Uweinat taking in some ring structures on the way. From Uweinat we did a spectacular circuit of Jebel Archenu and then set off up to some more ring structures about sixty miles east of Kufra near the Egyptian border. We located and photographed them before heading west to Kufra and then Rebiana, an oasis I had not seen. As we approached Kufra I noticed giant fields of crops nearby. This was the start of the exploitation of the fossil water found in a large aquifer below the surface, and was to be the supply for the huge pipeline known as the Man-Made River to take water to the north coastal area.

I did worry when the pilot took us down to a very low level to pass over Rebiana. While he gave me a splendid and detailed view, it must have been a shock for the local population, many of whom would not necessarily have seen an aeroplane, especially so close.

Dr Martin Williams, a geomorphologist who was on the Sandhurst expeditions, now in Australia, was to join us, as was Professor J Desmond Clark with two of his students who joined us from the University of California, Berkeley. Desmond was a most senior figure, and it was planned that he could bring a small tent with him. Everyone else slept under the stars. He also brought the support of the British Academy with a grant of £2,000.

At some stage a department in the Ministry of Defence wanted to know exactly what the Services were doing paying all these servicemen 'on duty' to go and swan about in the Libyan Desert. The future of the expedition was therefore on a bit of a knife edge. I was summoned to appear before senior civil servants to answer questions in Lansdowne House. They finally agreed that we could go and that we should be classified as 'on duty'.

We had training days, one of which was at the 42 Survey Engineer Regiment in Barton Stacey when John Wright, who had surveyed part of south east Libya during the war,

came to speak to us. Like so many expedition plans they over state the rigors of the climate, really puffing that up. We had been no exception, and he did comment on the fact that the climate was not really as harsh as all that. I knew he was right.

About six weeks before we were due to leave for Libya the revolution took place with Colonel Gadaffi ousting King Idris who had been ruling the country. There was then no chance of being able to enter Libya. Rather than give up at this late stage we devised a plan to go to the Air Mountains in Niger. There would be interesting archaeology centred round the ring structure of Adrar Bous in northern Niger, and there would be sand dunes for Dr Andrew Warren to study. We had to ensure that all 22 members<sup>1</sup> would and could accept the change of plan, and that our patron, the Duke of Edinburgh, sponsors and supporters would be happy. We also had to get clearance from the countries concerned, Tunis, Algeria and Niger. The only way to achieve this was to go and visit the embassies in Paris. Your grandfather, Bill McElwee, kindly went and stayed with Brooks Richards who was no 2 in the British Embassy. Bill secured the vital permission from the embassies concerned. Fresh maps had to be obtained and circulated, and we managed to obtain some limited aerial and space photography.

Mike Saunders did a splendid job of working with the regiment that was modifying the vehicles, getting absolute cooperation everywhere through his persuasion. He had two dune buggies from Volkswagen to prepare with their special sand tyres. The firm needed publicity. Gradually things came together, but not without H, who was to be a home base for the expedition, doing a great deal of ad hoc entertainment, having team members dossing down in their sleeping bags being fed at intervals by her. She even had Alan Pastron, one of the American archaeologists, to stay over Christmas. Late one evening when it was getting dark we went for a walk round the common to take some fresh air. Alan was clearly very worried for he had never been out like this without carrying a gun. We had noticed that he looked worried especially when passing thickets. We tried to reassure him. He had a cast in one eye, a dark moustache, and your Ma described him as looking like a Mexican bandit. Once in an oasis some Tuareg girls turned and saw him and, scared beyond belief, they ran a mile.

The advance party of the expedition left by air for Tunis. Those from Cambridge along with Dr Peter Beighton went via Sicily, and typically they allowed enough time to climb Etna. The locals could not believe that they would be going up at that time of the year - mad British.

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<sup>1</sup> Dr P Beighton (medical), Dr H Bevan Jones (medical), P Bradley (botany), Lt R Blott RN, Professor J D Clark (archaeology), R Davies (locusts), Maj D N Hall (Leader), Dr R G Huntsman (medical), Capt R G Lovell REME, Lt G C Parkes RE, A Pastron (archaeology), Lt A D Pigott RE, Lt J W G Rogers RE, Lt Col S A Rolfe Smith, Lt M J Saunder RN, Maj E H Schofield RTR, A B Smith (archaeologist), F. Thompson, P. Vulliamy, Dr A Warren (Dunes study), Dr M A J Williams (Landform study)

In Tunis the British Ambassador and his wife generously allowed us to camp in their garden before leaving. The Embassy warned us that the entry into Algeria would probably be tiresome and time consuming. Not a bit of it, on arrival in Algeria the customs and police could not have been more helpful, the police taking us to a restaurant where we could eat and showing us an area of beach where we could camp for the night.



Heading south through the Atlas, the police in the high city of Constantine kindly provided us with an escort to take us through the city, our convoy being two dune buggies, four Land Rovers and a 3 ton truck. Once we reached the dusty track and the desert, the buggies had

constant problems caused by dust and sand. They made the crossing of the Sahara longer than planned. At the southern end of Algeria the customs were extremely difficult, wanting us to unload nearly everything to have it checked. The three ton truck, christened Josephine, was a bundle of trouble, with an ever leaking radiator causing yet further delay. On eventually reaching Agadez the town at the southern end of the Sahara, we established a base, hiring a house for stores. Organising it all took several days.



Agadez is the administrative centre for the region of northern Niger. Iferouane, a small oasis in the Air lies about 110 miles north of Agadez, and Adrar Bous a further 120 miles over trackless, hilly desert and places where it is almost impossible not to get thoroughly bogged down in soft sand. Mont Greboun, the highest mountain, was about 20 miles from Adrar Bous, and it was in a wadi leading from the mountain that we found water just below the surface which supplied us for nearly three months, though towards the end we were digging down about four feet meeting a rocky bottom to extract small quantities of the remaining water.



We had to set up an advanced base at Iferouane in the mountains, an oasis I knew well from my visit there in 1962. On 18 January 1970 two heavily loaded Land Rovers left Agadez for Adrar Bous. However, between Iferouane and Adrar Bous both Land Rovers broke their half shafts when trying to plough through the soft sand with their heavy loads. They

were grossly over laden. Martin Williams and Desmond Clark found a herd of camels and hired some to take them on to Adrar Bous while one empty Land Rover returned to Agadez to collect spare parts. That was achieved by taking out the broken half shaft and driving on four wheel drive. I felt extremely worried having two members on camel with only the water they carried setting out to a waterless place, and one broken vehicle and two members somewhere between Iferouane and Adrar Bous. In fact all worked out well since we had a spare half shaft in Agadez and were advised to go to the French uranium mine at Arlit to scrounge a second., and supplies were taken up quickly to set up a camp at Adrar Bous. Arlit was a depressing place where there was a shanty camp of Tuareg workers attracted by employment, but taking them away from their nomad and free existence in the desert.

Meanwhile Andrew Warren had been getting impatient to get started, and eventually the sand dune party set off in a south easterly direction. Therefore, the expedition was split by a distance of at least 200 miles - not an ideal situation.



Keeping the Adrar Bous party in water, petrol and food was a constant battle with only two Land Rovers. the other two being with the dune party a few hundred miles away. I note in my diary for 10 February:

*Travelling in a single vehicle 140 miles from Adrar Bous to Iferouane is really an unacceptable risk. An accident or breakdown 50 to 100 miles from Agades would cause considerable embarrassment. We have enough water for 7 days and food for four at Adrar Bous, and they will be into their reserve of petrol in 2 or 3 days and could not reach us let alone get anyone to Iferouane.*



It was clear that Adrar Bous would provide useful work for archaeology and geomorphology. Both disciplines working in the same area paid dividends. Martin Williams dug some deep holes and found interesting stratification. At one stage all hands were busy clearing the lower side of a sand dune to examine the stratification within and beneath it. Meanwhile the surface of the desert around the mountain

was covered in what ancient civilisations left behind, and in the dried lake beds there were not only fossilised fish bones, but also bone harpoons.

With the use of the theodolite, Tony Pigott and colleagues prepared a map of the outer parts of Adrar Bous, and there were sorties into the interior. He and a team also surveyed a dried lake bed and also the wadi terrace of Mont Greboun.



There was a constant call on the use of vehicles and some members did not get vehicles when they wanted them. Keeping Adrar Bous adequately supplied with petrol, food and water was a constant balance. On one re-supply run from Agadez there was no brandy, and it is amazing how crucial to morale the few luxuries can be.

Quote from my letter to H dated 7 February 1970:

*We are sitting at our 'dinner table' on our jerry cans in our dining room constructed of a local mat as a wall and a roof of a parachute canopy, A light hangs in the centre beaming down on Martin and Dick playing a light hearted game of chess, Alan Pastron spread out on the floor near the central pole reading a science fiction, Desmond, as always, writing his copious notes with his red skull cap of wool on his head, and Andy Smith over on the other side of the table with a selection of exquisite Neolithic adzes.*

*Francis Thompson and Eddie Schofield are sitting over their tea on my left discussing the state of the vehicles up here. Outside about 15 yards away is the cook's table and a big fire of wood - no shortage here - round which sit Azowi, our elderly and nearly blind guide, and Ibrahim our young 'town-boy' cook.*



*Ibrahim is probably discussing the shortage of facilities here saying "Oui, mon Commandant, vous etez tres gentil, et je suis tres content". He is a young Hausa lad who really needs a lot of jolly along. (I think he thought, when he was told he would be coming to Adrar Bous that it was a town with lots of bright lights.) Azowi is onto a good wicket here. He is our guide, but only necessary for the journey through the mountains on the first few runs.*

Our base at Adrar Bous was based near a lone tree where we set up our parachute canopy under which we created tables from plywood on jerry cans or ration boxes. We even had electric light produced from a small generator. Every night Professor Clark would be marking and packing specimens and writing up notes long after most had turned in for the night. The light in his tent would then burn late while others found sleeping quarters where they wanted. Some walked well away from the rest and set up their temporary bed area, others preferred to be in the central area of the camp. Ibrahim, the cook from

Agadez, appeared to be frightened to be so far from civilisation, and whose culinary abilities were not great.



The archaeological finds were stunning. Many of the arrow heads were made from a fine grained green stone not found in the area, but others were white or orange, all delicately made with great care. There were scrapers and adzes of the green stone. Some pots were found in their entirety buried in the ground with only a hint showing. There were bones, and one of the most outstanding finds was a complete skeleton of an ox. Alan Pastron found a knob of bone level

with the surface. Working to uncover the bones, after seven days of careful digging and brushing he had the whole beast exposed. This, wrapped in cotton wool, was carried to Britain in Josephine and eventually deposited in Cambridge for examination. Carbon dating put the beast as grazing there 5,760 plus or minus 500 years ago.



A group with the archaeologists spent some days making a brief reconnaissance of the mountain Adrar Sirret where artefacts, mollusca, fish and mammal remains were collected. They reached an area of extremely soft sand and decided to walk the remaining fifteen miles to the mountain.

Meanwhile the dune party was working hard taking samples and recordings of facts and figures of sand and dunes for Andrew Warren's project. They were trying hard to keep one of the two dune buggies running and useful, though that became a losing battle, both buggies having already succumbed to the rigours of dust and rough ground crossing the Sahara before work could begin. They were a good idea, but were in practice a failure.

The Adrar Bous party had left for the last time with Land Rovers piled high, but taking immense care over half shafts. Azowi, our guide who had been sent with us was almost blind, but when I set the course by sun compass he could sense enough to tell us to go further right, taking us out of our way. I stuck to my guns.



The expedition assembled in Agadez on 24 March to depart. I was summoned to the Prefet's house to be told that before we left we either had to take the archaeological finds

to Niamey, some 500 miles away or pay to fly somebody up to inspect the material. Money was running out, but we had to pay for his flight and his hotel bill. Having been all geared up to start home, it was a real blow, especially since it was Easter and we would have to wait longer for him. In due course a Professor Boube arrived, but it was another four days before we could leave and were able to set out in a homeward direction on 4 April. Josephine, the 3 ton truck, was up to her usual tricks. This time it started with the radiator boiling and splitting open, but Ron changed to the spare, and while that boiled, it used less water. Then the problem was tyres, and in southern Algeria we had a puncture and no spare tyres left for her. There was a little way back a truck that had clearly hit a camel and had turned on its side. Its tyres were the same as Josephine's, so we took one. When we reached In Sallah, the next oasis we reported what we had done to the Gendarmerie who told us to return the tyre, or anything since taken from the truck would be our responsibility. There appeared to be a code of honesty in the Sahara. Occasionally one would pass a small pile of personal belongings, perhaps with a camel saddle, all neatly placed by the track to be collected some days later. It was over one hundred miles back, but it had to be taken. We managed to buy two old tyres for £20 which covered us the rest of the way.

At Algiers I took an aircraft home to get some money from Coutts out to the party, and left Stewart Rolf Smith with Mike Saunders and the team to bring back the remainder through Morocco and Spain. Poor Josephine made it as far as Dover, but then gave up the ghost completely so that a low loader had to come to the rescue from Aldershot.

In the time I was away your Ma was coping with three very young children, with the help of Fiona, but with an extremely limited budget, and also acting as home base for the expedition. This involved a great deal more than just passing information. There were difficulties over the first day covers (the envelopes with stamps for collectors) and the finances generally. He had to keep the wives and mothers of many of the members in the picture, type the newsletters written untidily from the field, make telephone calls to the MOD and much else. Then there were the problems of finding a house in Longmoor. Dick Dowdall, the Commanding Officer of the regiment I was to join as a squadron commander, said that we had to be in quarters so that we were both close at hand, yet he gave the only quarter that was to be ours to a foreign officer, and there were none left. Your Ma thumped the table and he agreed to us living in a hiring, High Cottage at Hewshott. I could be of little help to her because directly I returned I was to take over my squadron and take it up to Edinburgh for six weeks at once. Read my letters to her if you want to get the feel of things.

Much was achieved in the four months despite the difficulties of the teams being so spread out over the desert. To all the servicemen it was an outstanding experience of their lives, and many still meet once a year for the annual Desert Dinner. It resulted in various academic publications, including a volume: Adrar Bous, Archaeology of a Central Saharan Granitic Ring Complex in Niger by J Desmond Clark, Andrew B Smith, Martin A J Williams David N Hall and others ISBN 978-9-0747-5243-5.