On January 6th this year, the DNHG conducted an archaeological field trip to Tell Abraq, where Marc Händel (Austrian Academy of Sciences) gave the thirty-five members a fascinating 2 ½ hour tour of the site.

Located on the coast of the Arabian Gulf, Tell Abraq is a highly significant first and second millennium site whose remarkable stratigraphic sequences are unparalleled thus far in the UAE. Excavation has revealed occupation from c 2500 BC to c 300 AD – offering insights into Bronze Age, Iron Age and late Pre-Islamic societies – remarkable by comparison with most sites in the region, that tend to reveal habitation over centuries rather than millennia. The later, Hellenistic levels at Tell Abraq incorporate the use of Mediterranean cement technology, instead of the earlier mudbrick mortar – these upper layers are contemporary with the nearby settlements of Ed-Dur (UAQ) and inland Mleiha (Sharjah).

Currently bisected by the Sharjah/Umm al Quwain border, Tell Abraq offers one of the in the midst of ongoing excavation.

"Light" plastics – the infamous "nurdles", raw material for the manufacture of many (most?) plastics worldwide. Read one account of how plastic has affected part of coastal England following recent storms on page 7.

(Continued on page 4)
Announcements and Recorders

**Monthly Speaker -**
8pm on Sunday 4th February, 2017

**Lecture Title -** "Wonders of Mleiha."

**Biography -** Ajmal Hasan, Education Manager, Mleiha, under the Sharjah Investment & Development Authority, Shurooq, Photographer, Naturalist and Wildlife Enthusiast.

Ajmal is a member of the Dubai Natural History Group and has led several field trips. Until recently, he was our Chief Engineer.

An avid desert trekker, naturalist and nature documentarian, Ajmal has travelled to all parts of the UAE pursuing and documenting the flora and fauna of the UAE. With over 400 desert/mountain treks to his name and photographs of various indigenous plant and animal species of the UAE, his main goal is to spread awareness both on nature conservation and the environment.

**From the Editor:**
The weather outside is not frightful, it's absolutely delightful! January has been a very active month for members.

From old to new—the informative archaeological field trip to Tel Abraq is reported on the cover but, on page 7 you can learn about how modern-day plastic is affecting marine life off the English coast.

The colourful Bur Dubai temple tour around the many alleyways was enjoyed by members and the following week saw an early morning beach walk where observational sketching took place in Jumeirah. This extended into breakfast and a leisurely walk around one of the fishing villages nearby.

Another popular field trip this month took place on the east coast and was repeated again later.

View photos on the Spotlight page of life on the Creek and compare them with those taken further down the waterway, on the newly-constructed Dubai Canal. See tall buildings punctuating the skyline at sunset in the report on page 5.

Identify those creatures you find on trips by buying one of the books for sale on page 4!

DNHG require a volunteer to be the mammal recorder. Contact any committee member (contact details on page 8) if you can help out.

Enjoy your read!

**Game on the Table**
One of our members snapped the attached photo in her local Lulu Hypermarket. The sign advertises local gazelle meat and the Arabic assures us that "local" means Emirati. Can anyone provide more information about the source and other details?

The store display shows a Sand Gazelle *Gazella subgutturosa marica*, but we don't know whether this visual material was provided by the source or whether it represents Lulu's own independent (and potentially erroneous) marketing effort.

A report by EAD personnel in late 2016 estimated that there were about 50,000 Sand Gazelle in the UAE, most of them in managed reserves where numbers have been steadily increasing.

**Photo: Now available . . .**

**DNHG Recorders**

- **Reptiles - Dr. Reza Khan**
  050 6563601

- **Astronomy - Lamjed El-Kefi**
  res: 06-5310467 off: 06-5583003
  email: lankefi@emirates.net.ae

- **Marine Life - Lamjed El-Kefi**

- **Geology - Gary Feulner**
  res: 04 306 5570

- **Insects - Gary Feulner**

- **Fossils - Valerie Chalmers**
  res: 04 4572167
  mobile: 050 455 8498 email: valeriechalmers@gmail.com

- **Plants - Valerie Chalmers**

- **Archaeology - Annelisa Lambert**
  056 6904508
  email: anelisalambert@gmail.com

- **Seashells - Andrew Childs**
  mobile: 050 459 0112 email: andrew.childs@eim.ae

- **Bird Recorder— Panos Azmanis**
  0507083555
  Email: azmanis.vet@gmail.com

- **Mammals - new recorder needed!**
Spotlight!

Bur Dubai Temple Walk, led by Sandhya Prakash (photos by Helga Meyer)

Desert life around the UAE, by Chandrashekhar Sardesai (identified and captioned by Gary Feulner).

Arabian Horned Viper a/k/a Sand Viper (not all have horns) Cerastes gasperetti

Purple Sunbird stalking a large orb-web spider Argiope sp.


Sunset at Dubai Creek, by Dawn Wadsworth

(Left to right) man “paddle-boating” to reach dhow, cormorant low in the water, white heron resting on dhow scaffolding, seagull with the wooden dhow reflected on the water.
Field Trips

(Continued from page 1)

Tell Abraq—a first and second millennium archaeological site.

region’s best preserved Umm an-Nar settlements. Initial work had been carried out in the 1970s by an Iraqi team; Dan Potts subsequently excavated extensively on both the Umm al Quwain and Sharjah sides between 1989-1998, uncovering a well-preserved Umm an-Nar tomb and central tower, around which the settlement grew up, and presenting important insights into long-distance trade, subsistence patterns, demographics and human health.

Tower:

As at several other Umm an-Nar sites, the circular tower dominates the settlement, in this case standing over 8 meters tall. The lower 6 meters form a kind of foundation, with a central well running down through it to a lens of sweet water below; this towering foundation is topped by a platform that would have housed small buildings, with a notable diameter of 40 meters (compare with the tower at Hili 8 which is just 16 meters in diameter). It seems likely that a community chief would have resided in this fortified, mudbrick and stone structure, while the many postholes that extend outside of the tower suggest the presence of ‘arish’ like structures that may have been for the wider community’s habitation.

Tomb:

The Umm an-Nar tomb can be found just a few metres to the west of the fortified central area of the tell, dated to around 2100 BC. It measures a ‘smaller-than-average’ 6m in diameter, and was used for collective burials over several centuries, as per the usual Umm an-Nar model. Disarticulated bones indicate redistribution of earlier burials within the tomb to make way for the additions. One interesting feature was the discovery of the articulated skeleton of a young female, c 18-20 years old, with the twisted limbs of what appears to be a polio-like disease. Despite her obvious ailment, her burial, with disarticulated bones above and below her, suggests a level of care and respect from her community (Magee 2014: 121). The tomb is also significant in that it contained a wide assortment of luxury goods from South Asia, Iran and Mesopotamia. Settlement levels have yielded many artefacts that strongly suggest communication or trade with the wider world e.g. Harappan fishing weights, and Iranian black-on-grey and burnished grey ware.

Subsistence:

The stratigraphy reveals fascinating changes in subsistence patterns over time:

Cattle feature strongly in the Umm an-Nar meat diet, with some sheep and goat; fish that seem to be mostly line-caught from open water (bronze fishing hooks are found scattered across the settlement, along with Harappan-style fishing weights). The Wadi Suq period sees a move away from cattle, sheep and goat in the diet, towards fish and shellfish, with evidence for more lagoon fishing implied both by the species of fish caught, and the greater number of nets and traps in the archaeological assemblages. The move away from animal husbandry and focus on marine resources may have reflected the increasing aridity of the climate, and the difficulty in providing enough water for herds (Potts 2012: 76). A fireplace in the tower yielded hundreds of burnt date stones, and there is evidence of wild camel being eaten (domestication came later, in the Iron Age). The Socotra cormorant also played a notable part in diet, as did the protein-rich gastropod Terebralia palustris from the mangroves. Grain marks found in mudbrick suggest that cereals formed part of, rather than dominated, the diet. The archaeological record shows that the people of Tell Abraq used resources from coastal, inland and desert environments, adapting as circumstances changed over time.

Current work focuses on creating new and more detailed contexts alongside Potts’ previous work, with a particular focus on understanding the full extent of the ancient site. Potts (1993: 117) estimated the site at around 4 hectares. Subsequent work is revealing a spread of temporary sites that extend across at least 6 hectares, and probably further, suggesting that Tell Abraq may have been a notable political centre of the northern coast. Examination of archaeozoological data is also permitting a new understanding of the domestication of the dromedary in south-eastern Arabia (Almathen et al., 2016). Watch this space! Marc has kindly offered to lead another tour next season, if his schedule permits.

Many thanks to Marc Händel and the international Bryn Mawr team, in co-operation with Sharjah Archaeology Authority.

Photo credits: Anelisa Lambert, Iain Dodson, Dan Potts/University of Sydney.

Contribution by Anelisa Lambert
New Books for Sale

We’ve just received a new consignment of books from Peter Vine at Trident Press. I’ll be bringing limited copies to the next meetings, but as some are very heavy, please call/email me if you’d like anything in particular.

In the Land of the Emirates – The archaeology and history of the UAE

Published 2012. Author Dan Potts. 220 pages
This is an excellent introduction to the UAE’s archaeology, pulling together key findings from over 50 years of archaeological excavations. It demonstrates how the UAE, rather than being ‘a blank on the historical map of Arabia’, has a fascinating history of settlements, regional trade networks and long range political and economic influence. Professor Potts is a scholar who has been active in excavating the UAE for over 25 years.
Price: AED 150

Archaeology of the UAE – the proceedings of the first international conference

Published 2003. Editors Daniel Potts, Hasan Al Naboodah, Peter Hellyer. 336 pages
This is a compilation of papers presented at a conference on the UAE’s Archaeology, attended by archaeologists who have worked or who continue to work in the UAE. It is a more academic publication than the book above and includes papers on specific topics within the Late Stone Age, Bronze Age, Iron Age, Late Pre-Islamic and Islamic periods.
AED 200 – all purchasers will receive a DVD which contains a full pdf of the book.

The Emirates - A Natural History – 2 copies only
Published 2005. Editors Peter Hellyer and Simon Aspinall. 430 pages
This is the definitive coffee table guide to the UAE’s natural history covering geology, habitats and wildlife – plants, insects, reptiles, fishes, birds, mammals and more. Detailed text and excellent photography. Every DNHG member should have a copy… and we don’t have them very often....
Price: AED 320

Arabian Wildlife Encyclopedia – an essential guide to Arabia’s wildlife heritage for students and teachers

Published 2010. Editor Peter Vine. 230 pages.
This is primarily aimed at teenagers (13 – 19) but could also appeal to a wider readership. It is very richly illustrated and details interesting facts about Arabia’s insects, animals and plants with additional chapters on habitats, conservation and climate change.
Price: AED 120

UAE in Focus – a photographic history of the United Arab Emirates

A photographic account of the UAE covering a wide range of topics such as lost civilisations, ancient forts, maritime traditions, the sea, Land of the Leopard, the desert, heritage etc.
Text in English, Arabic, French, German, Spanish.
Price: AED 100

360 degrees UAE - a photographic view of the United Arab Emirates

Published 2010, 160 pages
An eclectic photographic view of the country through the eyes of photographer Nick Wood. Full of fresh, new images which you won’t have seen before. Nicely presented in a hard cover and would make a lovely present for visitors to remember the country by.
Price: AED 150

Angela Manthorpe – email: manthorpe2005@yahoo.co.uk; mobile: 058 135 4143
Dubai Creek and Canal Ferry Ride

On a pleasant Saturday evening, 21 members set off on the ferry from Jaddaf Marine Station. There are two other cruise options available earlier in the day but this one provides a very different perspective.

In simple terms it combined many lovely aspects and was an opportunity for members to enjoy and to repeat themselves at a later date with friends and relatives. Fares are charged according to the number of stops and this trip, which was from Jaddaf to Sheikh Zayed Road cost 40dhs. (silver) and 60dhs. (gold).

For all who arrived well before the 17.20 boarding, there was a chance to walk around the area and photograph the birds and the mixture of dhows, old and new, undergoing completion or repair.

Photographic opportunities are numerous on both sides of the Creek and canal. It is a change to view properties from a different aspect.

The barrage that is intended to offer protection to the mangroves and flamingoes can be seen although it seemed perhaps, a bit flimsy. Time will tell as to whether it serves its purpose.

As the cruise progresses the sun sets beautifully and is reflected on the buildings. There are several chances to photograph the Burj Khalifa in between the other buildings but you must be ready and preferably have one of the limited spots at the rail. However, the above photograph was taken through the very clean windows before darkness fell when reflection from subdued cabin lighting affected clarity.

When the sun disappears the city lights take over. Some bridge piers are illuminated from the water and are colourful.

Sensors pick up the ferry approach to Sheikh Zayed Road and the ‘waterfalls’ which announce the Sheikh Zayed Road stop, part from the middle, allowing dry passage for through marine traffic.

As the ferry ride takes just under an hour and a half, some were ready for refreshments at a nearby hotel.

Other information:

On board, the ferry has good facilities, WCs for male, female and disabled persons. There are two spaces available on board for wheelchair users. There is a built-in server but it does not function presently. At the Jaddaf base there is a drinks vending machine but it sometimes runs out. Passengers are advised to take some water with them.

There is a 200m. walk from The Metro Creek Station (Green Line) to the ferry terminal. If coming from Festival City, an abra is possible at 5dhs. each way but this would add much time to your journey and you would have to do the return trip back to Jaddaf. The cruise from Jaddaf to Sheik Zayed Road lasts almost an hour and a half.

Getting there should be checked beforehand but as there is presently no parking available at Jaddaf ferry station, the best option is a drop off there, and hail a taxi home from the many that pass by the road near the car park opposite the waterfall. Should a driver collect you from the car park, the parking here costs 4dhs an hour (but there are always spaces)!

Purchasing tickets cannot be done online and you need cash to pay at the ticket desk inside the building.

Other ferry routes are available in and around Dubai but they should be checked prior to setting off, as sometimes routes are cancelled. For more information on routes and pricing, check the ferry website at: http://www.dubai-ferry.com/routes/

Contribution by Hilary Holloway
A note from Stephen Green, now based on the south coast of England, gives us something to think about here in the Arabian Gulf as well. Stephen writes:

"A recent event and observation is I think worth mentioning. About eight weeks ago we were caught in the tail end of the massive North Atlantic hurricanes. Significant amounts of ocean surface waters were moved. The first surprise were the Portuguese Man-of-War colonies. [Stephen's battle with the Man-of-War was reported in the November 2017 Gazelle.] The second was a sudden awareness of oceanic plastic pollution. The strand lines in places consisted mainly of plastics.

"I found it difficult to walk past it and so I started my own little beach cleanup routine. Our local Council runs a very efficient recycling scheme, they take segregated plastics, so it did not seem a big problem.

"In fact it was quite interesting to see the mix and types of waste. The next realisation was that much of the plastic waste was being adopted as an environment for marine plants and animals. Bryozoans, algae, squirts, corals, barnacles and sea weeds, etc. all abound. What I do not know is whether there is a distinction between surface-floating materials and items that temporarily rest on the sea bed.

"The next step was obvious in retrospect but took a while to sink in. If all these plants and invertebrates, why not molluscs? A closer and more determined look at the strand line detritus resulted in success. The last six new molluscs on my local survey list have been from among the waste along the strand lines. The molluscs (and other invertebrates) are certainly adopting plastic refuse as a home or substrate. Whether they are adapting (evolving) is another question.

"Many of the molluscs are, however, very small or juveniles (3-5mm). They dry and fall off very easily. Some are also very difficult to identify. It's necessary to open the valves and examine the pattern of muscle scars. I will leave that to the experts!

"A local fossil collector has advised me to soak the debris, let it dry out, then sieve the deposits and examine them using a strong lens. I diluted the material as there is a fair amount of hazardous and effluent derived material. The molluscs are starting to turn up in and on commercial/industrial fishing waste.

"One of the main culprits for plastic pollution is the fishing industry. Cut-offs and portions of fish net are probably the most numerous items. On the net strands and inside the frayed ends I am going to have a closer look.

"I never stooped to this level when I surveyed molluscs in Bahrain or the UAE. It would be interesting to have a look at marine pollutants there.

"At the moment I am having no luck with polystyrene or styrofoam. Perhaps it moves too fast? Although yet again collecting it has had its reward. It blows onto the land. There is a very pronounced winter extreme storm line. The grasses, weeds and sedges grow very quickly and impale the polystyrene in place. At one point on my beachcombing route there is a section where landslip (ground water and sea erosion) has brought the land surface right down on to the beach (no normal cliff face). Clearing up the rubbish on this bit of "beach" has led me to the discovery of terrestrial molluscs living at the seashore – but that is a story for another time . . ."

Contribution by Stephen Green
Membership remains one of Dubai's best bargains at Dh100 for families and Dh50 for singles. Membership is valid from September 2017 to September 2018. You can join or renew at meetings or by sending us a cheque made out to HSBC account number 030100242001. (Please note we cannot cash cheques made out to the DNHG). Payment can also be made by cash deposit at a bank or ATM, using our IBAN number AE900200000030 100242001. However, this process does not identify you as the payer. If you wish to pay by cash, please also photograph or scan a copy of your payment confirmation and send via e-mail to the Membership Secretary, so we know whose money we have received.

DNHG membership entitles you to participate in field trips and help pay for our lecture hall, publication and distribution of our monthly newsletter, the Gazelle, our post office box, additions to our library, incidental expenses of speakers and occasional special projects.

Field trips will be circulated to members via e-mail